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ABSTRACT

This review and synthesis of research on home economics education covers studies done during the period 1970-1978. Research reports cover the following topics: consumer-homemaking education, occupational home economics programs in the junior and senior high schools, postsecondary and outreach programs for adults, area vocational schools, and home economics teacher education. The review focused on those studies investigating significant problems which tested theoretically derived hypotheses, those which approached problems in an innovative manner, those which illustrated a continuity of research, those which tended to conceptualize problems, and those which test experimental or quasi-experimental designs. The studies are divided into the following sections: the professional education of teachers; professionalism in home economics education; learning processes and teaching methods; needs, characteristics, and interests of learners; curriculum and teaching materials; sex-role stereotyping; occupations in home economics fields; evaluation; responsiveness to needs for information; and recommendations for future research. A list of references concludes the document. (CP)

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Information Series No. 184

HOME ECONOMICS EDUCATION: A REVIEW AND SYNTHESIS OF THE RESEARCH

written by

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1979

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FOREWORD

The Educational Resources Information Center on Adult, Career, and Vocational Education (ERIC/CE) is one of sixteen clearinghouses in a nationwide information system that is funded by the National Institute of Education. One of the functions of the Clearinghouse is to interpret the literature that is entered in the ERIC data base. This paper should be of particular interest to researchers and curriculum development specialists.

The profession is indebted to Helen Nelson for her effort in the preparation of this paper. Recognition also is due Camille Bell, Texas Tech University; Letty Pryor, University of North Carolina at Greensboro; and Shirley Chase, the National Center for Research in Vocational Education, for their critical review of the manuscript prior to its final revision and publication. Robert D. Bhaerman, Assistant Director for Career Education at the ERIC Clearinghouse on Adult, Career, and Vocational Education, coordinated the publication's development. Cathy Thompson assisted in the editing of the manuscript and Bonna Somerlott typed the final draft.

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ABSTRACT

This review and synthesis of research on home economics education covers studies done during the period 1970-1978. Research reports cover the following topics: consumer-homemaking education, occupational home economics programs in the junior and senior high schools, postsecondary and outreach programs for adults, area vocational schools, and home economics teacher education. The review focused on those studies investigating significant problems which tested theoretically derived hypotheses, those which approached problems in an innovative manner, those which illustrated a continuity of research, those which tended to conceptualize problems, and those which tested experimental or quasi-experimental designs. The studies are divided into the following sections: the professional education of teachers; professionalism in home economics education; learning processes and teaching methods; needs, characteristics, and interests of learners; curriculum and teaching materials; sex-role stereotyping; occupations in home economics fields; evaluation; responsiveness to needs for information; and recommendations for future research. A list of references concludes the document. (CT)

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INTRODUCTION

This review and synthesis of research on home economics education is the fourth in a series of state-of-the-art papers written primarily for researchers and graduate students. This edition covers the period from 1970 through 1978; it also includes some studies available in 1979. The research reports presented are relevant to consumer-homemaking education and occupational home economics programs in the junior and senior high schools, postsecondary and outreach programs for adults, and area vocational schools. Reports of research in home economics teacher education also were reviewed. Materials located through the ERIC Clearinghouse on Adult, Career, and Vocational Education were reviewed; *The Comprehensive Dissertation Index* (Dissertation Abstracts) also furnished leads on graduate research; and professional journals were searched for appropriate material. However, the completeness of the collection is not presumed.

Since many studies were reviewed, selection criteria were essential. The same guidelines were used as in the 1970 publication, and all were scrutinized -- the presence or absence of hypotheses, documentation of the validity and reliability of the measurement instruments, appropriateness of observation methods, quality of sampling design, the proportion of the sample responding, and appropriateness of methods of analysis. Guidelines established for inclusion in the review favored those studies investigating significant problems in an innovative manner, those which illustrated a continuity of research, those which tended to conceptualize problems, and those which tested experimental or quasi-experimental designs. Negative or inconclusive results were not a barrier to inclusion. Generally, studies based on data from a single school or district were excluded. Some studies which did not meet the established criteria, but which explored areas in which little research existed, also were included.

THE PROFESSIONAL EDUCATION OF TEACHERS

Studies in this area include two which examined problems and concerns of teachers. Preparation for working with disadvantaged

learners was the focus of the two other research reports. Four studies were concerned with student teaching, one examined attitudes of teachers of family relationships, and two others dealt with staffing patterns for home economics education. In addition, two studies looked at differences in teaching practices between graduates of programs described as contemporary and traditional. Several studies were selected from the research in the competency-based aspect of teacher education (CBTE): three dealt with the identification of competencies needed for special teaching situations; two reported the development of instruments for measuring competencies. One study examined the effect of competency-based teacher education programs on the participants' perceptions of personal competence, while another explored the relationship between student variables and the method for achieving competency. One study looked at changes over time in judged competencies of home economics teachers. Six studies selected for review focused on inservice education.

PROBLEMS AND CONCERNS OF TEACHERS

Despite initial enthusiasm for teaching, many beginning teachers are disillusioned by the end of their first year. Lundstrom and Murphy (1976) suggested that identifying situational variables which affect the expectations of first year teachers might aid administrators and teacher educators in providing a more positive experience. The purpose of the study was to determine the concerns of first year teachers and to identify the social and environmental influences of school and community variables. University graduates engaged in first year home economics teaching were the subjects. It was postulated that there is a significant relationship between the concerns of first year teachers and situational factors in their school and community.

A search of the literature identified aspects of community and school likely to affect first year teachers. These were either groups which served as socializing agents for first year teachers or environmental factors such as class size or satisfaction with living conditions. Presence or absence of these variables was measured by a questionnaire. The dependent variable concerns were measured by responses to an open-ended sentence. Responses were coded as negative, positive, or mixed. Areas of concern identified were self and teaching, work load, administration, and students. Situational subcategories identified were degree of

satisfaction with the community, number of friends in the community, conscientiousness of students, rating of physical facilities and teaching materials, reaction to administration, number of daily lesson preparations, extra duties, and class size.

The Mann Whitney U Test was used to test the significance of the relationship between each of the concern factors and the situational subcategories. Chi-square was employed to examine the relationship between each factor and subcategories and the relationship between the factors and "General Overall Feeling About Teaching" (obtained by computing the overall percentages of positive and negative scores). Findings indicated a significant relationship between teachers with four to five daily lesson preparations and negative comments about work load ($p < .001$), themselves, and teaching ($p < .05$). In addition, they expressed significantly more overall negative feelings ($p < .05$) than teachers with fewer preparations. The situational factor reaction to administration was found to be related significantly ($p < .01$) to the concern area of administration. In general, teachers seemed far more concerned with their teaching ability than with what students were learning. The researchers recommended that a lighter work load be given first year teachers. They recognized that this may be economically difficult but pointed out that recruiting teachers also is expensive. Improving communication between first year teachers and administrators might assist in clarifying role expectations. By communicating their relative standing to first year teachers, concerns about self-adequacy also might be diminished.

Penrod (1974) studied the problems of first year home economics teachers using the Delphi technique with small samples of randomly selected teachers, supervisors, and administrators. Data were used to compare the frequency of responses of the three groups, the major problems perceived by the groups, and the problems identified by teachers in similar studies. First year teachers were mainly concerned with fair grading systems, knowledge of subject matter, time for a personal life, class participation, planning, and the lack of encouragement. Supervisors were significantly more concerned than teachers or administrators with care of laboratory equipment and the lack of ability to write behavioral objectives. The ten most important problems perceived by teachers, administrators, and supervisors were remarkably similar: motivating students was the primary concern. Other problem areas were keeping classes going, and knowing what to expect from students.

PREPARATION FOR WORKING WITH DISADVANTAGED LEARNERS

Conway (1979) documented the serious nature of reading problems in the secondary school home economics classroom and developed a course to prepare teachers to incorporate the teaching of reading skills into their presentation of home economics subject matter. The development of the course for preservice home economics teachers and subsequent revisions covered three years. An exploratory investigation of its effectiveness was conducted in 1978 with six student teachers. Analysis was based on observation of the student teachers, lesson plans, logs and journals, and interviews with cooperating teachers and students. Results showed a strong indication that such preparation can make a beneficial difference in the behavior of teachers.

Krieger (1978) developed guidelines for adaptation of the home economics classroom and teaching aids for use with visually impaired, mainstreamed pupils. She also developed and evaluated a multi-media simulation experience including occluded performance of sewing skills. (This study is reviewed in detail in this section related to learners with special needs.)

STUDENT TEACHING

Twenty-seven vocational home economics students, their supervising teachers, and eight college supervisors were involved in a study by Wheeler and Gritzmacher (1978). Its purpose was to explore possible effects of student teaching on each of the three groups. The ability to perceive conditions and meet the needs of the student teacher were examined in relation to change in open-mindedness, self concept, and teacher-student rapport. The influence of these variables in each member of the student teaching triad on the other two members was examined. A control group was comprised of forty home economics seniors in a methods course, fifty-six secondary teachers (who previously had been supervisors), and eight professors who previously had served as supervisors. Three research designs were used: a quasi experimental non-equivalent control group, a correlation design, and Yee's frequency-of-change-in-product-moment technique. Content validity of variables used in each had been established. Reliabilities on tests ranged

from a split-half Spearman Brown of .87 for the Dogmatism Scale to a .96 on the Index of Self Confidence obtained from Hill's Index of Adjustment and Values. Instruments developed by the authors were documented in terms of content validity and reliability.

Two significant differences between experimental and control students were noted after student teaching: the student teachers were more closed-minded than the controls, and they rated students lacking in self-discipline more than did the controls. There were no significant differences between supervising teachers and college supervisors on the affective dimensions of open mindedness, self-concept, and rapport. A significant relationship was observed between change in rating of teaching deficiencies, open mindedness, and student self-control in student teachers. Knowledge of self-deficiencies appeared to relate to experimentation with new teaching techniques effective in gaining control of students. College supervisors appeared to be the most influential individuals in affecting open mindedness scores ($p < .05$).

Considerable concern has been expressed among home economics educators about the validity and reliability of using letter grades to evaluate student teaching performance. A disproportionate number of "A's" and "B's" tend to be assigned. Objectivity is difficult to maintain. An additional concern is that the experience is designed to provide the student with a supportive, counseling relationship with a teacher, one in which the student can explore and develop his or her teaching style. Assigning a grade to this experience has the effect of turning the relationship into a judgmental one. Nevertheless, some method of evaluation is necessary. Clawson and Scruggs (1974) investigated the feasibility of evaluating the experience using a satisfactory/fail grading system. They developed instruments to compare the relative effects of the "S/F" and "A to F" systems, compared the attitudes of students and cooperating teachers toward the two systems, and compared the performance of student teachers in both grading systems by their own judgment, judgments of the cooperating teacher, and ratings by the researchers of audio recordings of student teacher performance. Each of the tests was examined for reliability and validity. The subjects were fifty home economics education students enrolled in student teaching programs and their cooperating teachers. No significant differences between "S/F" and "A to F" student teacher performance were found. However, the student teachers rated by the "S/F" system reported feeling less anxiety and had more positive reactions to their cooperating teacher. The researchers emphasized that continuous evaluation and a letter of recommendation from the cooperating teacher are necessary to

provide feedback. These data indicated that the "S/F" grading system did not lead to the decreases in performance level.

Morgan (1973) described the characteristics of sophomore home economics education students taking an experimental course in simulated teaching and evaluated the course in terms of student learning, attitudes regarding teaching, the home economics education curriculum, and teaching performance. The experimental course provided each student the opportunity to teach three videotaped sessions. Students selected the home economics-related topics and the teaching methods. The sample was composed of forty sophomore home economics education majors. A total of 122 home economics education students not enrolled in the course constituted the control. Instruments were developed by the researcher including a scale to measure attitudes related to teaching and to the home economics education curriculum, a scale to rate teaching performances, interview schedules, a content analysis system for integrating data from audiotapes of conferences, pre- and post-interviews, and student reaction sheets. Data for two individuals and for the entire group who took the experimental course were synthesized by the case study method. Data from the interviews indicated that students were willing to take advantage of the opportunities available in the experimental course and to try different teaching styles. Students with little previous experience with children needed more direct supervision than those who had such experience. As the course progressed, students became more aware of the potential impact of pupils and became more realistic in their expectations.

Students taking the experimental course were found to be significantly less anxious about teaching and viewed the experience more favorably than those in the control. Two-way ANOVA was used to test for significant differences among the three teaching sessions on fifteen dimensions in the Analysis of Teaching observation system. On data from thirty-two students, significant differences were found on all but two dimensions (admitting lack of knowledge and exhibiting concern for pupils). Performance on relating major parts of the lesson, developing generalizations, phasing concepts accurately, and using unexpected opportunities for teaching all showed positive significant differences between sessions 1 and 3.

Shipley (1975) ascertained the degree of relationship between student teachers' perceptions of their role prior to student teaching and the cooperating teachers' perceived effectiveness

of the student teachers at the end of the period. She also examined the relationship between personal values held by student teachers prior to student teaching and the cooperating teachers' perceived effectiveness of the student teachers. The author also investigated whether the variables of role perception and personal values could be used as predictors of effectiveness. The population of all ninety-seven student teachers enrolled in six universities was studied. Three instruments were used in data collection: the Home Ecomonics Student Teacher Role Perception Checklist, the Home Economics Student Teacher Role Effectiveness Checklist, and the Survey of Personal Values. Pearson Product-Moment correlations were used to examine relationships between scores on the effectiveness and the perception checklist, on the effectiveness and the perception checklist and on the effectiveness and the personal values instruments. The relationships of the five role sector scores and the six values scale scores with the total effectiveness score also were analyzed.

Results of this study indicated that student teachers were judged to be most effective in performing roles related to program development, promotion of learning and being members of the educational and home economics professions. They were consistently judged least effective in departmental management. The student teachers were found to value particularly practical mindedness, orderliness, and goal orientation, placing "average" value on achievement and devaluing variety and decisiveness. Significant relationships were found between total score on the role effectiveness checklist and the role perception list. Significant relationships were found between total score on role effectiveness and the perceived role sector scores on substantive development and program development. Regression analysis showed that the role perception of program development was the largest contributing factor to perceived student role effectiveness. In descending order of importance: the values of orderliness, achievement, the role perception of substantive development, and the value of goal orientation were found to be major contributions. Shipley concluded that both a student's perception and value system may, indeed, be predictive of effectiveness in student teaching. It was recommended that home economics education programs place greater emphasis in developing adequate role perceptions related to department management, program development, and substantive development. A noticeable lack of integration of concepts pertaining to management, consumer education, and interpersonal relationships by student teachers indicated a need for strengthened curricula in these areas.

PERCEPTIONS OF CHARACTERISTICS
IMPORTANT IN TEACHERS

Pryor (1975) investigated the degree to which maturity and level of knowledge acquisition are positively related. She used the *Conceptual System Test*, developed by Harvey, and Hoover's *Application of Principles Test*. The author dealt specifically with the population of teachers of family relationships as opposed to general home economics teachers, seeing them as individuals who have fairly clearly committed themselves to "attending to interpersonal relationships." The study provided a most concrete description of the constructs measured by the CST and their interrelationships. Hoover's Application of Principles Test was selected to measure knowledge of interpersonal relationships at the application, analysis, synthesis, and evaluation levels of the Bloom taxonomy. Subjects were teachers who taught at least one course in family relationships and who responded to both the CST and Hoover's Application of Principles Test (107 of the 584 home economics teachers contacted, or 18 percent).

The major hypothesis tested was that teachers identified on the CST as being informationally interdependent (i.e., having an information seeking, problem solving orientation with the ability to change set, withstand stress, and behave creatively) will differ significantly from teachers identified as having a high degree of belief rigidity, tendency to over-simplify, strong belief in supernatural or inherent truth, traditional orientation, authoritarian approach, and unable-to-change set. They also will differ significantly on Hoover's Application of Principles test from teachers identified as conditionally dependent (i.e., those who have strong outward emphasis on friendship, interpersonal harmony, and mutual aid). Using a single classification analysis or variance, a significant relationship was found between scores on Hoover's test and the CST (.001). The author interpreted the findings as follows: if home economics educators are expected to teach such concepts as family relationships, they must be mature and be able to convey alternative explanations of reality to students. Personal, as well as cognitive, development is necessary and should be strongly emphasized in the curriculum.

The purpose of a study by Kisisel (1971) was four-fold: (1) to create a model of the urban teacher; (2) to create a similar model

based on the responses of pupils, teachers, and supervisors from selected urban secondary schools with large portions of low socio-economic pupils; (3) to compare the models; and (4) to examine the later model in terms of possible differences in perception of these groups (pupils, teachers, supervisors). The Delphi method was used as the data collection technique. Ten inner-city secondary schools were randomly selected. Ten supervisors, 100 students, and forty-five teachers were selected for the initial sample. Four sequential rounds of the Delphi technique were administered. From the 1168 individual original responses, 136 items in checklist form were responded to by 141 subjects.

In the first questionnaire, considerable divergence on classroom-related characteristics between students and teachers was apparent. Students emphasized the importance of classroom situations, stressing pupil-teacher relationships and personal characteristics of the teacher. Teachers, on the other hand, emphasized classroom situations involving actual teaching activities and techniques. In subsequent questionnaires, convergence of opinions occurred, and the classroom-oriented concerns with personal attributes of the ideal teacher (appearance, sense of humor, authenticity) assumed greater importance. The urban teacher model was not found to be completely adequate, although seven of the eight model components encompassing personal and professional characteristics for the inner city secondary home economics teacher received backing from items supported by the majority of respondents. Kisisel concluded that additional areas clearly needed to be included in the model: teacher pupil relationships, pupil evaluation, and positive reinforcement.

PROFESSIONAL PRACTICES OF TEACHERS

McMullen (1975) investigated the professional practices of first-year teachers who were graduates of "traditional" and "comtemporary" home economics education program. Traditional programs were defined as those emphasizing technologies of production in clothing, foods, and the like. Contemporary programs were those emphasizing personal development of the teacher and family development and which provided multiple teaching experiences. The researcher hypothesized that graduates of a program classified as contemporary would be more student-centered and would emphasize more contemporary home economics concepts (A.H.E.A Concepts and Generalizations) in their teaching than would graduates of programs classified as traditional. Criterion measures selected for

student-centeredness and curriculum emphasis were Farris' Pupil Feedback Instrument and Ray's Student Estimate of Teacher Concern. Farris' instrument is based on Flander's categories dealing with teachers' indirect and direct verbal behavior. It is a 21-item, 5-point continuum response instrument with a reliability of .92 for fixed strata. Ray's SETC, Form C, is a 25-item instrument with an assessed reliability of .94. The researcher devised a structured interview to assess curriculum emphases. Face validity was established as were objectivity and useability on a pre-test of six home economics secondary teachers. Three telephone interviews were scheduled with each teacher participating. Near the end of the study, the SETC and Pupil Feedback Instrument were administered to students in the classrooms of these teachers. The sample consisted of seventy-three of the 104 first-year teachers initally contacted from one contemporary and two traditional colleges.

Findings revealed that first-year teachers graduating from both contemporary and traditional programs are seen by their students (total n=2325) as exhibiting indirect teaching behaviors and concern for their students). Home Economics department personnel assumed the responsibility for curriculum planning in 87.6 percent of the cases; administration was responsible in 12.4 percent of the schools. In the first of three interviews, significant difference was found in the amount of time spent on contemporary home economics in the classroom. Contemporary graduates spent more time. This was not observed in the second and third interviews. This phenomenon also was apparent with integration of personal management and human development into all units of home economics. Fifty percent of all time in all home economics classrooms was devoted to clothing construction and food preparation, only 14 percent to human development, and 8 percent to management and consumer education. The occurrence of integration of management concepts in all areas of home economics was minimal.

Hall (1978) hypothesized that differences between the graduates of traditional and contemporary programs which did not show up after one year might appear after four or five years as the graduates matured professionally. It was projected that graduates of contemporary programs would differ from graduates of traditional programs in the emphasis they placed on human development, management, and values concepts, and focus on student-centered behaviors. Reliability of the researcher-developed Curriculum Orientation Survey (COS) was calculated at .95, and of Fuller's Teacher Concern Checklist (TCC) at .79. Student-centeredness was determined by the indirect behavior of the teacher as measured by Farris' Pupil

Feedback Instrument. There were no significant differences by undergraduate program in the teacher's reports of the emphasis on integration of content. No significant differences were disclosed in the teacher's concerns by undergraduate program. Results indicated that professionally mature teachers from all of the undergraduate programs were student-centerd, but the curricula in the secondary schools (as the teacher reported) did not reflect different emphasis.

STAFFING OF PROGRAMS

Odland and Cebik (1975) analyzed and projected career employment opportunities for degree graduates in home economics over the remainder of the decade. Predictions were based largely on statistics collected by the U.S. Department of Labor, the U.S. Bureau of the Census, the USOE, and the Southern Regional Education Board.

Trends indicated that the number of home economists in education is likely to stay the same, while increases will occur in such areas as child development; family relations; foods-nutrition; dietetics; institutional, hotel, and restaurant management; and interior design. Increased concern over general quality of life and energy consumption suggest future directions for home economists. The quality and specialized skills of graduates in various curriculum areas will be critical in meeting future needs. Allocation of resources and counseling of potential students were regarded as essential. According to the study, the projected number of jobs in home economics far exceeds the number of graduates projected for 1980 (31,740 graduates; 53,340 jobs).

One phase of Knickerbocker's (1977) survey of superintendents of sixty-six Louisiana school systems was to ascertain how many vacancies for vocational home economists were created in 1976-1977, why they occurred, and what qualifications were needed. Other phases included gathering information on administrators' perceptions of the image of vocational home economics, and upgrading existing preservice and inservice education for home economists.

In addition to a questionnaire, interview questions were asked of eighteen randomly selected administrators. Interview questions focused on the special problems experienced by incoming home economics teachers. Administrators were asked to suggest ways in which teacher education programs could improve preparation.

Results indicated that 95 percent of the administrators suggested that home economists be certified in a second teaching field. The areas most strongly recommended were science (68 percent), followed by art (7 percent), mathematics (5 percent) and health and physical education (4 percent). Most administrators agreed that recent teacher preparation seemed adequate. Areas needing strengthening were classroom management and record keeping. Administrators stressed the need for preservice experiences which spanned the entire school year or at least a course which emphasized planning for an entire semester. Continuity of teaching experience was essential; however, the idea of dividing experience between different types of schools to provide diverse experiences was not well received.

Knickerbocker also reported that administrators were impressed with the stability of the home economics teachers they hired. In considering home economists for teaching positions, the administrators viewed personality as the most important variable, followed by recommendation of principal, appearance, grade point average, and recommendations of previous teachers or employers. Most administrators felt the primary value of home economics is its contribution to the students' future family life. They felt that home economics is particularly valuable for those planning to terminate their education at the end of high school. However, some felt that home economics teachers continued to spend too much time on such "frills" as knitting and crocheting, time which should have been spent on family life development. The following areas were considered of primary importance: food and nutrition (70 percent), textiles and clothing (68 percent), family relations (65 percent), personal development (63 percent), consumer education (60 percent), and child development (54 percent). Attitudes toward inservice programs varied. Forty-five percent felt missing one day of inservice classes was acceptable but stressed that hiring substitutes was expensive. Many felt that the state-required two days of inservice education should not interfere with classes. Superintendents felt that, because of their stability, many home economics teachers tended to lose touch with the changing needs of the students after several years. They felt that evaluation and revision of home economics curriculum guides for both secondary and junior high school should be undertaken.

CBTE: IDENTIFICATION OF COMPETENCIES

DeWald (1977) delineated forty competencies for human development. Home economics teacher educators judged the relative importance of the competencies for preservice education and were in general agreement about their relative importance. Comparisons of rankings by human development specialists and by the teacher educators revealed significant differences for nine of the forty statements. Teacher educators highly valued three competencies which could be considered conventional content of human development. The specialists ascribed higher value to six competencies which dealt with the development of individuals and ways in which students gain a better understanding of behavior and attitudes, theirs and others. The researcher, implying that differences in perceived importance of competencies could make a difference in the teacher's development, recommended that teacher educators examine human development content as both means and end.

King (1977) selected and sequenced professional education competencies that home economics students in programs of limited size should master prior to the completion of the undergraduate program. Competencies were adapted from those identified by the American Home Economics Association in *Competency-Based Professional Education in Home Economics: Selected Competencies and Criteria.* A Q-sort was used to collect the data. Sixty cards, each containing a competency, were used by participants to select competencies for five education courses. A binomial test was used to determine the number of responses significant for each course area in the .05 level. An average rank of the significant competencies for each course was obtained to determine the sequence in which they should be used. All competencies were found to be significant at the .05 level for one or more professional education areas. Teacher educators tended to select most competencies in the areas of student teaching and methods of teaching home economics. Respondents suggested that sequencing was not as important, since most competencies were achieved in an integrated manner. One-half indicated they were utilizing competency-based education or were at the stage of planning for its implementation.

Walter (1978) identified competencies for middle school teachers, of general and home economics subject matter, and isolated specific competencies necessary for the middle school teacher.

Two samples were used. The first was a group of thirteen experts selected to suggest competencies; the second consisted of 135 administrators, teacher educators, general middle school teachers, and home economics teachers. A questionnaire reflected five essential teaching behaviors: types of techniques, ways to achieve positive interpersonal relations, methods for class management, motivational techniques, and community roles. A sixth category, knowledge of the teenage individual (10 to 13 years) was added. Suggested behaviors were rewritten as fifty-nine competency statements and assigned to one of the six categories. Respondents reacted to whether the competency was necessary for all teachers, general middle school teachers, or middle school home economics teachers.

Clusters of competencies were identified. Two were identified for all teachers: knowledge of the 10 to 13 year old individual, and "management of teaching". Another cluster comprising a merger of the two was identified for middle school teachers -- knowledge of the 10 to 13 year old individual was viewed as integrated into all other teaching behaviors. Again, one large cluster was identified for home economics teachers in the middle school -- management of teaching -- which is similar to the cluster identified for all middle school teachers. The competencies judged as most important for all teachers were showing concern for students, preparing and implementing learning activities for different learning levels, handling disruptive behavior, evaluating instructional objectives, and cooperating with other teachers. Competencies judged as particularly essential for middle school teachers were meeting learning needs at different levels, basing curriculum on goals of the school, using learning activities to achieve developmental tasks, and providing experiences which build positive self-concepts. For middle school home economics teachers, the first two areas of general behavior were identical to those identified for the general teacher. Those perceived as uniquely important to the home economics teacher included achieving developmental tasks through curriculum, building positive self-concepts, understanding 10 to 13 year olds, allowing for physical characteristics when organizing teaching, and providing frequent feedback to students.

Siewart (1978) identified and validated competencies for consumer education teachers at the secondary school level. A questionnaire was developed from competencies recommended by selected teachers of business and home economics in a university consumer education class, university professors, graduate students, and high school

administrators. A panel of experts reduced the list to 130. Field testing and revision resulted in 128 competencies, each to be judged on a five-point scale. These competencies were then divided into two 68-item instruments. The subjects of the study were 691 teacher educators, secondary school students, and undergraduate teacher education students randomly selected. The sample was selected to represent business education, home economics, and social studies. In addition to ranking the importance of each competency, respondents were asked to indicate at what educational level the concept should be taught.

To investigate for subject matter, professional, or interaction efforts, two-way ANOVA was used to measure differences between means in importance ratings and goal rankings. R-technique factor analysis was used to identify clusters of competence. (Those with Varimax rotated factor loading of 40 or greater were accepted as clustering in a factor.) Forty-nine percent of the competencies were rates as essential and 38 percent as very important for consumer educators at the secondary school level. Only seventeen of the competencies (13 percent) were rated as moderately or slightly important, and no competency was rated as unimportant. Significant differences related to subject matter effect were observable in 59 percent of the competencies. Home economics respondents rated competencies highest and social studies respondents lowest, with business respondents following the home economists. Home economists consistently rated competencies from the subsection, Plans for Direct Instruction, more highly than did social studies educators. They also put significantly more emphasis on determining objectives, sequencing objectives, and selecting appropriate instructional materials.

Significant professional role differences also were found. Teacher educators in all three subject matter areas tended to regard professional growth and development competencies more highly than either secondary teachers or education students. The two latter groups tended to rate competencies relating to variety in methods, techniques, and materials more highly than did the teacher educators. The study provided no evidence that the most appropriate educational level for emphasizing competencies is in any way affected by subject matter or professional role. The top rated goals identified were (1) to enable students to develop values and standards of choicemaking; (2) to assure the acquisition of information, skills, and practical competencies connected with purchasing, budgeting, and utilization of resources; (3) to understand the consumer role and to evaluate behavior, attitudes, and problems; and

(4) to equip students to study, plan, and act to improve the social and economic mechanisms of society.

CHOICE OF METHOD FOR ATTAINING COMPETENCIES

Of 280 preservice home economics education students given a choice of method of instruction, 200 chose to study by way of a teacher-directed approach; 80 chose a student-directed modular approach (Cummings and Bell, 1979). The researchers were concerned with assessing (1) the differences in mode of instruction selected in terms of their effect on grade point average scores, cognitive gain scores, and affective gain scores, and (2) the differences in cognitive and affective gain scores in terms of self-concept, internal-external locus of control, self directedness, and grade point average scores. The competencies studied were professionalism, discipline, evaluation, management, interpersonal relations, motivation, guidance and counseling, and program planning and instructing. In selection of method for learning, no significant differences in self-concept, locus of control, or grade point average (GPA) were noted. However, students selecting the self-directed approach scored significantly higher on the self-directedness scale. In pre- and post-test comparisons, students classified on Rotter's "I-E" scale as external achieved a significantly higher cognitive gain than those classified as internal in the teacher-directed group. In the evaluation area, low GPA students in teacher-directed groups gained significantly more than high GPA students. The reverse was true in the instructing area. More external students, high GPA students, and highly self-directed students had a higher cognitive and affective gains on motivation when teacher-taught. When all competencies were considered, students in the teacher-directed group gained significantly more in the cognitive area than those in the student-directed modular group.

EFFECTS OF PROGRAMS ON PERCEPTIONS OF PERSONAL COMPETENCIES

The competency-oriented approach attempts to move the development of competence from the hidden to the recognized curriculum. In addition to examining the effects of competency-oriented programs on the teachers' perception of personal competence, Marks (1977) also examined the effects of certain personality characteristics

on the variable and asserted that a teacher's perception of a personal competence is the result of the interaction between personal characteristics of the individual, the characteristics of the teacher education program, and the social setting in the public school system. The design for the study was Campbell and Stanley's "Static-Group Comparison," a pre-experimental design. No pre-test to establish equivalence of the groups was used. Rotter's Internal-External Locus of Control Scale (I-E) and the author's Personal Competence Index (a set of thirty-two competencies coded into sets and subsets based on what "I can do" and what "I ought to be able to do" and "Where do I stand in relation to others?") were used.

Graduates of ten universities and colleges (five with competency-based teacher education programs and five with traditional ones) in their second or third year of teaching were the subjects. Questionnaires were mailed to 309 potential subjects; 104 responded (50 competency-based and 54 traditional) with useable questionnaires. Reliabilities were .934 for the "can" category, .948 for the "ought" category, and .930 for the "other category. No significant differences were found between the competency and the traditional group when the criterion was the rating on the I-E scale. However, significant differences were found in the Personal Competence Index. The competency-oriented group of teachers perceived themselves as more competent than the traditional group and felt more capable of demonstrating these skills in front of their peers. The competency and traditional groups showed no differences in their perceived skills in interpersonal communications. In a classroom situation with only the teacher and students present or in a lesson planning situation, no differences in perception of skills between the competency based and traditional students were indicated. The competency-oriented students perceived less distance between their present abilities and future needs.

CHANGE OVER TIME IN COMPETENCIES

Gilbert (1974) focused on identification of assessment items useful in examining effectiveness in competency-based programs and determination of increase in student competencies during student teaching. The samples included seventy-seven home economics education students. No instrument could be found that measured the four segments of the teaching-learning process considered pertinent to this study, i.e., classroom performance, interpersonal relationships, evaluation skills, and professionalism. Hence,

Gilbert devised one based on a rating scale previously developed, the objectives and generalizations of the courses taught in the home economics sequence at Iowa State University, the result of a workshop and a pilot study investigating student teacher competencies.

Two analyses of variance were computed for each of the fifty items in the instrument. The researcher considered twenty-four of the items definitely promising for future study in CBTE programs. One-tailed *t* tests were used to examine the degree to which student teacher competencies had changed over four, six, and eight week intervals. Only one item, "The teacher is well prepared for class," failed to show a significant change. However, the range in the means from the first to the third observation showed that the amount of time necessary for students to reach the predetermined mastery varies and that many may have reached it before the third observation. Tremendous fluctuation between cooperating teachers' and college supervisors' ratings indicated a need for closed communication between the two as to what represents acceptable evidence that a competency has been achieved. Classroom performance competencies tended to be achieved earlier in student teaching than evaluation skills. The twenty-four items judged to be most discriminating among student teachers all dealt with classroom performance. The twenty-two evaluation items were found to be the least promising. Because some of these behaviors were not observable until the second or third observations (six and eight weeks of teaching), a longer period of teaching may be necessary for students to achieve these competencies.

INSTRUMENT DEVELOPMENT FOR CBTE

Researchers at Louisiana State University revised a previously used scale to rate home economics student teacher competencies in planning, teaching, and evaluating (Leonard and Stewart, 1979). Training materials were developed to provide opportunities to improve ability to discriminate competency levels and to provide a uniform situation for testing the scale. Statistical analyses of ratings later made by student teachers, cooperating teachers, and college supervisors at three different points in the student teaching situation indicated the scale was reliable.

Daniel (1976) developed and tested a scale to rate affective competencies of teachers as they related to teacher/pupil relationships. The competencies used had been previously identified and

verified in research at the University of Georgia. The length of the scale was reduced by the judgment of experts on the extent to which affective competencies are amenable to observation and preliminary field testing. The final version contains provision for seventy-three ratings of thirty-four affective competencies.

PUBLICATIONS BY HOME ECONOMICS TEACHER EDUCATORS

Home economics teacher educators have acknowledged the relevance of the competency-based education movement through their professional associations and in a continuing series of workshops, seminars, and publications.

Home economists at a workship at Iowa State University identified professional competencies based on the objectives from five conceptual areas: educational philosophy, professional role, program planning, the educative process, and research. The publication *Competency-Based Professional Education in Home Economics* (1974), resulted from the workship.

Competencies and Criteria for Home Economics Teachers was published in 1978. The competencies and criteria outlined in this volume were developed and refined at a national working clinic sponsored by the Bureau of Occupational and Adult Education (USOE), and the Division of Vocational Technical Education in Kansas City, Missouri. The competencies and criteria for performance were validated by subject matter specialists in clothing/apparel and textile products, consumer education and management, housing and living environments, human development, and nutrition and food management. It is a resource for planning or special interest to heads of home economics colleges, teacher educators, department heads, state supervisors, and teacher certification personnel.

Instruments for Assessing Selected Professional Competencies for Home Economics Teachers by Home Economics Teacher Educators also appeared in 1978. *Competency-Based Professional Education in Home Economics* served as the basis for this publication. It includes a collection of instruments which home economics educators were willing to make available to fellow professionals. The measures vary in level of conceptualization, stage of development, and amount of reported documentary data. The two documents share the characteristics of usefulness, relevance, and availability.

PERCEIVED NEED FOR FURTHER EDUCATION

Hughes and Dougherty (1977) investigated the stated educational needs of teachers in home economics, preferred method of delivery, conceptual areas, and attitudes toward inservice education. A Likert-type ten-point instrument was constructed to measure the variables. The sample consisted of all Wisconsin public school home economics teachers in 1974-1975. High school teachers comprised 86 percent of the sample, 55 percent were postsecondary teachers (total N=1883). Very few teachers in either category had a master's degree, suggesting that inservice programs which offered degree credit would have high potential. Teachers seemed to recognize their responsibility to share information obtained in inservice with colleagues. They also indicated a preference for problem-oriented workshops.

On-campus programs for which no credit was received were the least favored type of workshop. Workshops of relatively short duration were preferred. This finding suggests that a series of short, complementary workshops might be preferable to a full semester course. Respondents felt that courses should be offered at times and locations which conflict as little as possible with family responsibilities. The most commonly preferred curriculum areas were consumer education, clothing and textiles, and related art. Topics of general interest were student motivation, use of audio-visual aids, and curriculum development. Programs furthering professional development in teaching homemaking skills were found to be of more interest than those stressing occupational wage earning, however, respondents indicated that programs to stimulate professional interest in wage earnings should be developed. Professional concerns of interest to teachers were future directions likely to affect the field, recent trends, legislation, and leadership development.

ALTERNATE DELIVERY SYSTEMS

In an effort to overcome constraints which made it difficult to provide inservice education in Colorado, Kazerani (1977) developed an alternative system consisting of modules and supporting media for an inservice course. The researcher compared this method with the traditional lecture approach. Effectiveness of the alternative

course was determined by pre- and post-test for knowledge of concepts and responses to a three section attitude scale: attitude toward method, context, and response to expectation. The Separate Variance and Pooled Variance *t* tests were utilized. The .05 level of confidence was accepted in testing sex null hypotheses.

Test Site I, where instruction was offered through the traditional lecture method, served as a control group to both Site II and Site III. Subjects comprising this class were inservice education students. Test Site II utilized the first three modules of the alternative system. The majority of the students at this test site were undergraduates. Analyses revealed that on the pre-tests for concept knowledge, the two groups were statistically the same. The Knowledge of Module Concepts post-tests revealed significant differences on the three modules, with Site II scoring higher. However, on each section and on the total score of the attitude scale, Site I scored significantly higher than did Site II. Site III utilized eight modules of the alternative delivery system. Subjects at this site were inservice education students. The pretests for knowledge of module concepts showed no significant difference when Site III data were compared with those of Site I. The knowledge of module concepts post-testing revealed that the students who studied through the alternative system scored significantly higher than the control group on each of the eight modules except one. Statistical analyses revealed that on the total score of the attitude scale and on the method and expectation sections, the experimental group was significantly more satisfied than the control group. No significant difference existed on the content section of the attitude scale.

Believing that currently existing programs have failed to meet needs for inservice education, Farris (1978) designed, implemented, and evaluated a model for providing relevant and accessible in-service training to practicing professionals. An additional component was the provision of an efficient means of self-evaluation to aid teachers in planning more effective learning experiences. The content included instruction in needs analysis, establishing set, questioning, reinforcement, value clarification, and operationalizing personal teaching values. Farris provided learning packages which combined visual aids and reading materials. Video taping was used to record teacher performances. A total of eighty home economics teachers participated in the course. Teachers of grades seven through twelve in all areas of home economics, with varying levels of experience and from different types of communities, were represented.

Evaluation of the project consisted of the participants' evaluations of the course and measurements of change in video-tape-recorded teacher behavior. In addition, pre- and post-course student ratings of teachers' verbal behavior were available for the second year of the project. Course evaluations were positive for the most part. Eighty-seven percent of the teachers felt that the course activities were of as much value as any other inservice training program in which they participated. The disadvantages, e.g., problems with audio-visual equipment, the amount of time needed to complete the assignments, delays in receiving materials, and the lack of ability to interact with other participants seemed to be outweighed by the advantages. Administrators' evaluations generally were positive; most agreed that this type of course would be of value to teachers in all subjects.

Initial and final tapes coded by Flanders' Interaction Analysis system indicated significant changes in the classroom behaviors of participating teachers. For the twenty-nine sets of pre- and post-course data available (for 1975-1977), an increase in the use of indirect teaching behavior was significant at the .02 level of probability and at the .11 level for the second year of the study. Between observer reliability (.76 - .79) and within observer reliability (.82 - .89) were calculated. Changes in coded verbal behaviors were computed using the dependent t computer program from the Statistical Package for the Social Sciences. Significant increases using a two-tailed probability ($p>.002$, 1975-1976; and $p>.05$, 1976-1977) were found in the use of praise and encouragement. In addition, a significant decrease ($p>.01$) for the use of lecturing was found for both years. For both years, the amount of student talk in relation to that of the teacher increased significantly. An increase in accepting and clarifying students' feelings, although not significant, also was noted for both years. Changes in student ratings of teachers' verbal behavior reflected change in the same direction as did the other evaluative instruments. None of these changes was statistically significant. However, teachers were enthusiastic about the use of such student feedback in evaluating their own teaching. Farris also devised an inservice program aimed at encouraging home economics and other vocational teachers to reduce sex stereotyping in interpersonal relations (it is reviewed with other studies of sex-role stereotyping).

Researchers at The National Center for Research in Vocational Education at The Ohio State University (Development of Specialists, 1973) conducted a workshop to deepen home economists' sensitivity to the needs of individuals in family life programs for adults in

inner city and rural areas as well as junior high school students in "impact home economics" programs. Many of the participant teachers lived outside of the area they served. Twenty prospective home economics teachers and three experienced teachers were enrolled in a one-week workshop followed by six weeks of training in a family life education program. Two seminars midway through the internship and one at the end were held to share and summarize experiences. The Teacher and Community Inventory (Spearman-Brown split-half reliability of .912) and the Guilford-Zimmerman Temperament survey (Kuder-Richardson reliability of .73) were used as pre- and post-tests to measure program effectiveness. Students also were asked to submit daily logs.

Directors and teachers of family life education programs were asked to respond to questions on the quality of the intern experience. Statistics involved *t* tests at .05 level of significance. The most apparent successes of the program were a positive attitudinal change of the interns toward inner city families, an increased understanding of the traits needed in working with disadvantaged adults, an increased awareness of the problems likely to be encountered in administering such programs, and an increased knowledge of the characteristics of the adult learner. The interns were able to establish meaningful relationships with the adult learners and view the problems of the inner city in clearer perspective. Fear of the internship was evidenced in the post-test scores on the Guilford-Zimmerman Scale, indicating perhaps that preparation for the internship should be more elaborate.

Brown and Bice (1976), in an attempt to define the role of the instructional supervisor, addressed three questions: What is supervision? What is the function of the supervisor? What performance competencies are required of the supervisor? They examined the general categories of behavior expected of supervisors, the specific competencies which comprise each category, and how these competencies could be incorporated in a competency-oriented curriculum for supervisors of vocational home economics education. The researchers identified seven concepts comprising the supervisory role: utilization of research for curriculum development and change; identification of curriculum innovations which could be incorporated into a long range plan; education of teachers in all areas of professional development; cooperation with the state department of education in the dispersal of information; application of teaching and learning principles to a developing philosophy of education, work, and life; relation of theory and practice in supervisory action; and awareness of legislation affecting educational policies. These concepts were incorporated

into the study instrument. Validity of the instrument was judged by experts in home economics education. The final version consisted of 132 performance objectives each of which represented one of the seven concepts rated on a four-point scale. Respondents consisted of a stratified random sample of supervisors of vocational home economics education, vocational-technical education administrators, vocational home economics teacher educators, supervisors of vocational home economics education, general supervisors and principals at the local level, and supervising teachers from thirteen states. Of the 175 contacted, 125 responded to the questionnaire.

The data were collected using a modified Delphi technique. Only those statements which obtained a concensus rating of 4 (essential) or 3 (important) and at least an 80 percent majority of responses in the combined 4 and 3 categories were selected for analysis. This resulted in the elimination of only eighteen statements; the proposed second Delphi probe of statements from the questionnaire was abandoned and a second questionnaire of eight new statements suggested by respondents was sent to the 125 respondents. One hundred and six individuals responded to this second probe. Statements receiving a concensus rating of 4 or 3 and having a majority of 90 percent combined 4 and 3 were retained. Data were analyzed using a *t* test (.05 significance level) for differences in responses from the major groups of respondents and their respective subgroups on the seven major principles. All seven major principles and seventy-four of the competencies received concensus ratings of 4 or 3 and had a majority of 90 percent of responses in the combined ratings of 4 and 3. The researchers recommended that teacher educators incorporate the seven concepts comprising supervison and the seventy-four competencies into the curriculum for students being prepared as home economics education supervisors. Existing theories of supervision should be examined to insure that there is no gap between the theories and supervisory practices actually used.

WORKSHOPS ON COMPETENCY-BASED EDUCATION

Meszaros and Baird (1979) investigated the effectiveness of competency-based inservice workshops on knowledge of and attitude toward competency-based education, teaching behavior, and student perception of teacher concern for them as individuals. Using a quasi-experimental design, three groups of home economics teachers in inservice competency-based workshops were studied. Group I (N = 16) attended a one-week workshop on individualizing

instruction taught by a competency-based approach; group II (N = 15) participated in a three-week workshop, same subject and same approach. A control group (N = 15) attended a two-week workshop on teaching family relations which had no emphasis on either individualizing instruction or competency-based education. In the competency-based groups, participants progressed toward achieving the specified competencies in an individualized process. Each sampling unit of students was one intact home economics class taught with an individualized, competency-based approach by teachers from Groups I and II (N = 485). For the control teachers, one class being taught family relations was the student sampling unit (N = 354). The researchers, in addition to designing the particular content and the process of the workshop, developed the "Competency-Based Education Test" in two forms (reliabilities .85 and .80), and the "Competency-Based Education Attitude Scale" in two forms (reliabilities .87 and .85), a participant follow-up form, and a workshop survey form. Data also were collected by use of Ray's Student Estimate of Teacher Concern and Loftis' Measure of Professional Commitment. One way analysis of variance and covariance were used to test significance of differences among groups with .05 level as criterion.

The effectiveness of the competency-based inservice workshop was supported for the teachers sampled. Compared to the control group, teachers who participated in the workshops spent more time individualizing instruction and were perceived by their students as more concerned for them as individuals.

SUMMARY

In summary, the early work done by home economics teacher educators in structuring home economics education has been followed with the production of three publications in the continuing series. Teacher competencies in professional education and in the subject matter to be taught were identified. Criteria for competencies in content teaching were set up. A collection of instruments for assessing professional competencies was made available. The concepts of CBTE have attracted a number of researchers. A study based on identified competencies found teacher educators in agreement that all were important and that sequencing was unimportant since they (the competencies) were achieved in an integrated manner. One study identified competencies uniquely important to the home economics teacher in the middle school as opposed to competencies needed by all middle school teachers. Another study examined competencies needed for teaching consumer education.

Instruments to assess the competencies were revised from previously developed tests and validated in two reported studies. Adequate technical qualities were demonstrated. In one study, however, the instrument was not sensitive enough to pick up differences over various intervals of student teaching. Improvements were made in subsequent research.

Two related studies that investigated possible differences between teachers from contemporary and traditional programs found little difference between the two groups on the selected variables. Students perceived all as student-centered. The curricula in the secondary schools as taught by either "contemporary" or "traditional" graduates did not reflect different emphases. A discouraging finding was that 50 percent of all time in all classes was spent in clothing construction and food preparation.

A study focusing on inservice education found teachers wanting opportunities for study at times and locations which would conflict as little as possible with family responsibilities. Other studies proposed and developed alternative methods of delivery. One used modules and supporting media for a course to be used by a local teacher. Another was a self-instructional model using learning packages with subsequent teacher performance evaluated by video taping. Findings in each of these studies indicated a high degree of satisfaction with method; since learning occurred under each delivery approach.

PROFESSIONALIZATION IN HOME ECONOMICS EDUCATION

Considerable research interest has been shown in topics related to the home economics and home economics education profession. Four studies chosen for review were concerned with job satisfaction; three studies presented research on professional commitment and professional growth; two examined the socialization process in professionalism, while others dealt with philosophic positions and value orientation. One longitudinal study dealt with variables that influence home economists' postgraduate education.

SOCIALIZATION AND PROFESSIONAL IDENTITY

Despite considerable interest in how males obtain professional identity, little research has been done on the particular mechanisms employed by professional women in obtaining and maintaining professional identity. Anderson (1976) developed an instrument to study professional identity. The Professional Socialization Influences Instrument (PSI), was derived, for the most part, from the literature on professional socialization and interviews with home economists. Items were categorized into three stages: anticipatory socialization influences that affect the decision to enter the field; professional education socialization influences at the bachelor's and master's degree levels, and post-professional influences of full-time work.

The instrument was administered to three populations and revised using item and factor analysis. This resulted in five different instruments. Some socialization factors operating at stage three were similar to those at stage two. Advisors were influential; faculty were important, as were expectations of the institution; and experiences provided were important. Supportive peers assumed a far greater importance than would seem necessary for satisfactory job performance; opportunities to become involved in the professional culture also were important Finally, a strong sense of role anxiety was found to be important. Three essential aspects of postprofessional socialization were concluded from the research: support for participation in the profession's organizations and activities; provision of opportunities for colleagues to interact; and recognition of the effects of anxiety-producing mechanisms from the larger environment.

Amos and Nelson (1979) investigated the effects of socialization on experiences on the attitudinal perceptions of home economics teachers regarding their work as a profession and themselves as professionals. The research model incorporated four aspects of socialization theory: intrafamilial, educational, work, and professional organization affiliation. The content relative to professionalism (the dependent variable) was organized into four dimensions: profession *per se*, professional association, client orientation, and orientation to school as an organization. Grids were developed for each of the dimensions. Attitudinal statements pertinent to each grid were written. A panel of judges evaluated the pool of items as to validity for a professional domain in home economics teaching. Items judged to be valid were presented in Likert-type form and combined (with questions relative to the selected areas of socialization) into a self-administered questionnaire. The questionnaire was pre-tested with a group of home economics teachers. Twenty-seven items were retained for each of the four subscales of the Professionalization Inventory for Home Economics Teaching (PI-HET). Reliability calculated using Cronbach's Coefficient Alpha was 0.9582 Profession sub-scale; 0.9640 Professional Association sub-scale; 0.9499 Client Orientation sub-scale; and 0.9493 Orientation to School Organization sub-scale.

Of 333 home economics teachers randomly selected to participate in the research, 287 (86 percent) returned questionnaires. In the sample, 80.9 percent were between twenty-five and fifty-four years of age, and 71.5 percent were married. Masters degrees had been earned by 48.3 percent, and 26.5 percent had some credit beyond it. The majority had taught between three and twelve years (52.2 percent); 33 percent had taught thirteen years or more. Six independent variables were found to be related significantly to one or more of the sub-scales of the PI-HET: autonomy training (extent to which respondents perceived parents as having valued independence for them as they were growing up), support in choice (supportiveness of significant others in their career preparation), home economics teaching as first choice, total number of years worked as home economics teacher, member of professional association, and reading of professional journals.

The main generalizations derived were as follows. The majority of the home economics teachers believed that home economics teaching is a profession. They thought that home economics teaching is an isolated occupation; nevertheless, they identified with other home economists and believed that common commitment is important in their professional group. Home economics teachers strongly endorsed home economics as a vehicle for serving families. Freedom in decision-making was considered important.

PROFESSIONAL VALUE ORIENTATION

Cowan (1973) attempted to obtain consensus on priorities of professional home economics values as perceived by professionals within and outside of the field. The Delphi Technique was selected to note repeated responses from leaders in the profession. Three populations were sampled. Three iterations of the Delphi Technique was conducted on 522 nationally recognized home economics leaders. Of these, 362 (69 percent) responded to the initial questionnaire and 330 (63 percent) responded to the second interaction. Half of the professionals (262) responded to the final iteration. Because of the nonparametric nature of the data, one-way ANOVA, cross tabs, and Kruskal-Wallis one-way ANOVA by ranks (a nonparametric test) were used in analysis. Questionnaire I resulted in 1,800 constructs which were then reduced to fifty-seven major categories. A Delphi panel evaluated the items and formed 121 constructs related to two distinct conceptual areas: the person as a professional home economist and the body of knowledge encompassed by the field. The final form of Questionnaire II consisted of seventy-two generic statements related to fifty-seven construct categories. In the third and final iteration, respondents were asked to identify constructs with which they disagreed. No additions were recommended, thereby indicating that the list was exhaustive.

Results of analysis indicated that variables of subject matter section, professional section, and age were statistically significant influences of differences for 10 percent of the value constructs; age accounted for 20 percent. Low congruence of value priority was found to exist between national and state home economics leaders as indicated by differences on 75 percent of the constructs. Even less congruence was found to exist between home economics and social welfare leaders as shown by differences in priority ratings on 90 percent of the constructs. Clearly the value constructs are not being well articulated within the profession or between professions. The researcher suggested that such poor communication may be at the heart of the basic image and status problems faced by the profession. Constructs which were specifically home economics related did not receive the highest priority ratings, suggesting that the field does not have a unique professional or philosophical base. The central core of values identified was strictly professional and did not relate to a common or unique purpose related to the content of home economics.

PROFESSIONAL GROWTH OF TEACHERS

Wilson (1973) studied the indicators of professional commitment, involvement in growth activities, and improvement through self-directed activities. Her basic assumption was that involvement in growth activities would lead to improvement in knowledge and changes in practices. An additional concern was the relationship of teaching experience to both professional involvement and commitment to teaching. Professional involvement was indicated by membership in professional organizations; participation in formal and informal meetings, workshops, and other activities; knowledge of exemplary curriculum practices; and implementation of these practices. The researcher developed a questionnaire for use with a random sample of 200 home economics teachers. Several areas were covered in the questionnaire: membership in professional organizations, recent participation in formal and informal growth activities, and knowledge and implementation of exemplary practices. Professional commitment was determined by responses to the Loftis Measure of Professional Commitment (MOPC).

Responsed from 140 teachers supplied the data. Background information indicated that 75 percent of the sample taught in schools with 500 to 1,500 students; 50 percent had been teaching less than five years; 20 percent held a master's degree; and 54 percent taught at the senior high school level, while the remainder taught in junior high school. The variables used to determine professional involvement were validated as measures of the same variable at different levels of complexity by the Guttman Simplex. All of the professional involvement variables related significantly at the .01 level to the professional commitment scores. The variable with the highest correlation to professional commitment was participation in informal growth activities. There was no relationship between years of teaching and higher levels of professional involvement. Though the older, more experienced teachers participated in professional growth activities, there was little evidence that this involvement improved their knowledge or implementation of curriculum practices. The researcher questioned the quality of the activities available and recommended that school boards provide motivation and time for teachers to participate.

JOB SATISFACTION

Despite considerable research on what type of preparation home economics education should include, there has been little investigation on job satisfaction in this field. Schultz (1977) devised an instrument to measure job satisfaction, defined the components, and investigated the relationship of individual characteristics of professionals to job satisfaction. The sample was selected from the population of home economics colleges or departments in which faculty possessed a doctorate, held at least an associate professorship, and taught in departments in which over 500 students were enrolled. Thirty institutions agreed to participate. Data was gathered from 238 questionnaires. The two-part questionnaire consisted of biographical and job satisfaction sections. Data obtained were factor analyzed using varimax procedures. This method resulted in the selection of many items which did not logically fit together. Hence, the loadings were rotated using the Procrustes Program. The reliability of each of the factors was found to range from .99 to .47, using the Spearman-Brown formula. Two factor analyses of variance, controlling for sex of respondent (which has previously been shown to interact with other demographic variables), were performed on each of the three factor scores.

The demographic variables were grouped into four categories: productivity characteristics, current position, spouse's background, and personal characteristics. No significant relationships were found between productivity and job satisfaction. Primary job interest was found to vary significantly with administration and salary. Also significant was the relationship between course load and satisfaction with administration; the greater the course load, the less satisfaction with administration. The personal factor, parenthood, was found to affect significantly satisfaction with administration. Faculty who were parents expressed less satisfaction than those who were not. No significant relationships between spouse's background and job satisfaction were found. Sex was found to affect significantly satisfaction with administration and job pressure. Males were significantly more satisfied than females with administration. Women felt significantly more job pressure than did men. The researcher suggested that particular attention be paid to this last relationship, noting that as job opportunities continue to expand for women, methods of helping women cope with the increased responsibilities of these opportunities must be explored.

The number of women in the working world is increasing rapidly. However, many women are working not because of the increased opportunities available for them in the work world today but because of economic necessity. Many women continue to work in unfulfilling, sex stereotyped jobs while maintaining the role of homemaker. Griffith (1978) investigated the work satisfaction and level of adjustment of Kansas home economics teachers. Home economics teachers' own feelings of adjustment and satisfaction with their jobs may consciously or unconsciously exert a strong influence on students'career decisions. The author examined among other things, differences in reported job satisfaction and what would be considered important in the ideal job situations, attitudes toward women working, and occupational satisfaction in different age groupings. The sample consisted of 326 randomly selected home economics teachers and the 143 spouses of those who were married. Responses were received from 212 teachers. The instrument used to collect data was the Minnesota Satisfaction Questionnaire; reliability coefficients for the various sections ranged from .80 to .90. Validity for the scale is based on other content validation studies using the Theory of Work Adjustment. Both the ideal job and the actual job satisfaction scales were comprised of the same twenty aspects of an occupation. Related sample t tests were used to determine the significance of differences between ideal and actual job satisfaction and husband versus wife scores on satisfaction and attitudes toward women working. The Pearson-Product-Moment Correlation Coefficient was used to estimate associations among selected variables.

Results indicated that for both teachers and their spouses, there was a significant ($p<.001$) difference between actual and ideal job satisfaction. This difference tended to be greater for the spouses than for the teachers. No significant differences among age groupings were found for any of the three dependent variables, although younger teachers tended to rate ideal job satisfaction as more important than older teachers. Older teachers expressed greater satisfaction with their current jobs than did younger teachers. Home economics teachers were significantly more satisfied with their jobs than were their spouses. Furthermore, the teachers were significantly more in favor of women working than were their spouses. In examining relationships among the selected variables, age and economic commitment were found to be significantly related to job satisfaction ($p<.01$, $p<.05$ respectively). Older teachers indicated that they were significantly ($p<.001$) more willing to take a cut in pay and remain in their jobs than were younger teachers. A significant ($p<.01$)

relationship between age and attitude toward women working indicated that older teachers hold more traditional attitudes towards women working than do younger teachers. The researcher concluded that home economics teachers in the sample were, as a group, relatively well adjusted.

Through a national survey, Huang (1976) explored the predictive power of home economists' professional attitudes, commitment, and such demographic variables as total number of years employed as full-time home economist, major responsibility in present employment, highest degree earned, approximate monthly gross income, marital status, number of children, and age range. A simple random sample (stratified by highest degree earned and AHEA section membership) was drawn from the population of 28,161 members of the American Home Economics Association (1975-76). The invited sample size was 450; of the questionnaires returned, 297 (66 percent) were received in time to be included in the data analysis. Four instruments made up the questionnaire: a 100-item modified Minnesota Satisfaction Questionnaire (twenty Likert-type scales, each sampling a specific dimension of employment satisfaction); a 75-item semantic differential scale (PAS) to measure content, mission, needs, and sociological and human factors; a 12-item Likert scale measuring commitment, and a 10-item biographical information sheet. Four types of data analysis were conducted: ANOVA to test for mean and variance differences between the stratified sample groups; factor analysis to explore for existence of factors; computation of correlations and multiple regression analyses to test hypotheses; and multiple regression analysis to construct the most powerful prediction equation. Zero order correlations between the independent variables and employment satisfaction were significantly positive for five of the variables: professional attitudes, number of years as home economist, approximate age, administrative responsibility, and monthly gross income. Employment satisfaction was found to have a significantly negative correlation with professional commitment and teaching responsibility. A weak positive correlation was found between the highest degree earned and employment satisfaction, while no correlation was found between job satisfaction/marital status/total number of children/and research/supervision/combination of responsibilities. No significant differences in correlations of job satisfaction with the work *per se* and work related factors were found. Professional attitudes appeared to be the major contributor to the variance in employment satisfaction although professional commitment, number of years as home economist, teaching responsibility, monthly gross income, and age range all accounted for minor portions of the variance. The most

powerful prediction equation accounted for only 30 percent of the fluctuations in job satisfaction; other attitudinal variables such as personality variables, intelligence, and value systems were suggested as possible contributors to the remaining 70 percent of the variance. The tremendous contribution of professional attitudes to job satisfaction suggested that time might be well spent in investigating factors contributing to the development of positive professional attitudes.

Confair (1976) attempted to determine if well qualified professional women are afraid of administrative positions or if their values and commitments orient them to prefer non-administrative positions. The study was designed to test for differences in values and level of job satisfaction of women home economists who have administrative and non-administrative posts in higher education. Ray's Values Orientation Scale was used as an assessment of values (pre-test internal consistency reliability of .90). An Index of Job Satisfaction was formed from the responses of two items on the Prefessional Data Questionnaire. The Kuder Richardson 21 Reliability for the index was .839. These questionnaires were sent to 586 (50 percent sample) women home economists with doctorates who were members of the College and University and Research sections of the AHEA. Of the 76 percent of returns, 62 percent were useable. Administrators had significantly higher job satisfaction scores than the non-administrators, with deans having the highest scores. Non-administrators interested in administration had lower job satisfaction scores than the non-administrators not interested. Non-administrators not interested in administration differed from non-administrators interested in terms of larger proportion of time spent in research and more graduate teaching responsibility. Of all the values under investigation, the subjects valued most were concern for others, followed by status, intellectualism, and independence. Eighty percent of the respondents were either in or interested in administrative positions. Contrary to contemporary literature analyzing women's attitudes toward administration, qualified women in home economics were not afraid of these positions.

INFLUENCES ON POSTGRADUATE EDUCATION

McChesney (1974) examined the influence of variables previously identified as affecting decisions about graduate study of large groups of female college graduates upon academically talented female home economics graduates. Both obstacles and influences were examined. This was a longitudinal study involving 1013

students who graduated between 1962 and 1967. The first questionnaire (N = 688) was mailed in 1967; the follow-up (N = 348) was mailed in 1973. The first questionnaire was pilot tested on a stratified sample of home economists randomly sampled from the university and area of specialization they represented. The second questionnaire was designed to examine how closely the initial respondents followed their plans for graduate study. The independent variable, decision to pursue further graduate work, was dichotomized as either not interested or postponed and either involved in or completed graduate study. The dependent variables included past employment pattern, career aspirations, factors related to undergraduate education, and reference group. The largest group of respondents -- slightly over one third of the total -- majored in home economics education. The next largest group of home economics graduates -- child development -- comprised 16 percent of the total.

All data were analyzed using chi square. Significant influences on involvement in graduate study identified were family support, faculty encouragement, having included graduate study as part of one's life plans, convenience of program, promise of increased earnings, and adequate financial support. The most significant obstacles to further study were identified as financial difficulties, the desire for practial work experience, family responsibilities, and inconvenient programs. In particular, the educational backgrounds of key reference persons appeared to be significantly related; husband, sister, close friend, and father showed the strongest relationships. Employment status of mother or mother-in-law did not appear to be significantly related. Married graduate students with children were significantly less likely to be involved than others. One aspect of undergraduate study found to be related was experienced guidance concerning graduate study. Contact with research was not at all related, and contact with graduate students or career related experience was found to be slightly negatively related, though nonsignificantly. Specific career plans at time of completion of undergraduate studies was found to be positively significantly related. At the time of the 1973 follow-up, percentages of respondents planning, involved in, or having completed advanced degree programs by undergraduate major were noted as child development, 78.2; institution management/dietetics, 72.7; home economics education, 72.3; foods and nutrition, 65.4; general home economics, 63.2; textiles and closthing, 44.4.

PROFESSIONAL COMMITMENT AND SEX BIAS

A study reviewed in more detail in the section dealing with sex-stereotyping is appropriate to note briefly here (Bentivegna, 1974). Among other findings, the results indicated that there was no correlation between level of professional commitment and attitudes of college university home economists toward acceptance of males as colleagues. However, on one of ten variables, there was an exception to this general conclusion; namely, individuals holding office in professional organizations were significantly (.01) less willing than non-office holders to accept males.

SUMMARY

In summary, a large number of studies focused on various aspects of professionalization of home economics educators. The factors influencing professional identity and commitment were: supportive peers, opportunities to interact with colleagues, participation in professional organizations, and a strong sense of role anxiety. Job satisfaction was found to be higher for home economists who had large time commitments to administration rather than little or none at all, for males in home economics positions as opposed to females, and for researchers as opposed to those with full-time teaching loads. Pressures included heavy teaching loads and parenthood responsibilities. One researcher found a negative correlation between professional commitment and job satisfaction. Low congruences on priorities of professional home economics values was revealed to exist among national and state leaders, thereby suggesting a clue to the image and status problems faced by the profession. Values identified in one study were strictly professional and did not relate to a common or unique purpose related to the content of home economics.

LEARNING PROCESSES AND TEACHING METHODS

Eleven studies are reported here on research relating to learning processes and teaching methods. Four are comparative studies of teaching strategies; two report the development and testing of a packaged instructional unit. One study analyzed teaching behaviors; another looked at nonverbal components of interaction, and still another examined concomitant learnings.

COMPARISON OF TEACHING STRATEGIES

Kasmur (1977) examined the relative effectiveness of three types of instruction: lecture-discussion, learning packages, and a combination of the two. The study focused on the relationship of self-concept to achievement in the three instructional modes. The subjects were juniors and seniors enrolled in a course dealing with methods of teaching and school law in vocational education. Only one consistently significant difference was found with *t* tests done on post-test differences. This favored the combination form of instruction as opposed to strictly individualized packages. Subjects experiencing the combined package -- traditional mode of instruction achieved significantly higher mastery (.05 using F test and analysis of covariance) than those in the learning-package-only group who, in turn, scored higher than the lecture-discussion subjects. Students with below average GPAs were not found to favor individualized instruction. Pearson Product Moment correlation between self-concept and post-test scores was .103, hence, there appeared to be no relationship between self-concept and academic achievement.

Davidson (1976) compared the effects of two methods of developing verbal communication abilities and confidence. A simulation strategy involving video tapes, role playing, and discussions was developed. A non-equivalent group quasi-experimental design was used. The sample consisted of twenty students enrolled in a home economics education methods course. They were divided into ten-person laboratory groups with the experimental group receiving instruction via the simulation method and the control group receiving a traditional case study approach. Five instruments were developed for use in data collection: (1) Teacher Confidence

Rating Scale -- a twenty-item Likert-type scale administered to students in both groups to assess level of confidence; (2) Leadership Experience Rating Scale -- a combination checklist and rating scale relating to perceived value of leadership experience; (3) Teaching Experience Rating Scale -- a seven-item combination checklist and rating scale to assess relative values of the seven types of teaching experience; (4) Teacher Communication Competencies Rating Scale -- a six-point overt behavioral checklist dealing with qualities of effective speech; and (5) Panel of Judges Demographic Information Form -- an instrument designed to collect college demographic information on the selection of criterion for judges. Pre- and post-testing consisted of video tapes of micro lessons taught to six high school volunteers. Pre- and post-test scores were collected from the judges and combined for a comprehensive teacher verbal communication ability score.

A one-way analysis of covariance yielded an F value of 177.77 for treatment effects (significant at the .001 level), indicating that the simulation strategy which focused on communication abilities was more effective than the case study strategy. Education and experience factors showed no significant relationship with performance in the simulation strategy. However, past academic performance related significantly to performance in the case study strategy. Students in the simulation group expressed significantly greater confidence in their teaching ability than those in the case study group. A simulation strategy for the development of verbal communication skills and confidence in these skills seemed to be a viable alternative to the case study approach.

Acacio et al. (1972) compared a self-instructional program of training for food service personnel with group training and concluded that, regardless of level of education, participants who had programmed instruction learned as much as those studying the material in teacher-taught short courses. This study is reviewed in depth in the section on occupations in home economics.

MASTERY LEARNING EXPERIMENT

Cioch (1974) studied the effects of a mastery learning method used as an integral part of a basic and advanced quantity food service course. Stanley and Campbell's Modified Solomon 4-Group Design was used in the experiment. The four groups were comprised of the two sections of the basic course (experimental: mastery learning strategy) and the two sections of the advanced

course (control: traditional approach). There were no significant differences in the overall GPAs of the groups. A summative test of mastery in quantity food service (STMFS) was developed. An item analysis, level of difficulty, and discriminating power were determined for each question; the most appropriate questions were then selected. The STMFS was used as a pre- and post-test on a total of sixty-nine subjects. Item difficulty ranged from 40 to 90 percent; the overall reliability was assessed at .92. Scores indicated that students in the advanced course who previously had completed the basic course scored significantly higher on the pre-test than those who had not. The basic course group of experimental subjects pre-tested on STMFS did not score significantly higher than the basic course group of experimental subjects who were not pre-tested. The basic course experimental subjects, all of whom received the mastery learning treatment, achieved significantly higher gains on the post-test than did advanced course students taught traditionally. At the onset of the study, the control group had a mean pre-test score of 49; the experimental group had a score of 38. By the end of the study, the control group dropped to 55, while the experimental group increased to 72. Subjects in the basic course experimental groups achieved significantly higher scores than did the control subjects in the advanced course who previously had the basic course. The mean difference amounted to more than sixteen points.

ANALYSIS OF TEACHER BEHAVIOR
AND STUDENT RESPONSE

Brun (1970) developed and tested a system for observing, recording, and analyzing teaching behaviors that stimulate student cognitive responses. The Brun Cognitive Interaction System (BCIS) was based on various theories (e.g., Bales, Woodruff, Taba, Smith, Guilford, Bloom, and others). The six categories of behavior for teachers and students were: (1) unrelated stimulation or response, (2) recalling or obtaining information, (3) using or selecting and applying knowledge, (4) analyzing - comparing - contrasting, (5) judging - evaluating - determining significance, (6) generalizing or creating. Reliability was established by rating three videotapes of classroom situations at two points in time. Chi square analysis yielded chi square values of .30, 3.3, and 2.30, indicating considerable agreement over time. Interrater reliability was established by comparing the researcher's ratings with those of three observers using a full-length tape of a home economics class. The instrument was tested on twenty selected ninth grade

home economics classes. The behaviors of both students and teachers were analyzed. Comparisons were made between tallies of behaviors in the six categories, relationships between student and teacher behaviors, and the ability of the instrument to discriminate between the different classes.

Tallies for teacher behavior appeared in all categories except unrelated behaviors and in all categories for student behavior. As the level of cognitive behavior increased, the tally of behaviors decreased rapidly. Fifty percent of all behaviors for both teachers and students occurred in category 1, with less than one percent in category 5. Only eight of the twenty teachers and seven of the student groups exhibited behaviors in category 5. There was a very close positive relationship between the levels of cognitive behavior stimulated by teachers and that which students exhibited in response. A matrix of frequencies indicated that 88.4 percent of student behaviors occurred at the same level as the teacher stimulation. The BCIS was not, however, clearly able to discriminate among classes. The instrument was demonstrated to be useful for describing teacher and student behavior.

Loss (1973), theorizing that selected teaching styles might provide a socioemotional climate which promotes student self-directed learning whereas other styles may thwart it, developed two instruments to measure non-verbal components of interaction. The Loss Observation System (LOS), is a thirteen-category system representing a continuum of behaviors related to self-directed learning ranging from facilitative to non-facilitative. Four categories were rated by teachers and students. Content validity, interrater reliability, overall reliability (.716), and a mean inter-item correlation of .163 were established. The Loss Inventory of Physical Characteristics of the Classroom was used as a checklist of available supplementary materials. The Smith Teacher Facilitation of Self-Direction Inventory (TFSD), a thirty-item instrument, was used to measure stated intent to facilitate student self-directed learning. Subjects were self-selected teachers in seven urban school systems. Several observations were made independently by two raters. Stated intent to facilitate self-directed learning and student nonverbal behaviors were examined.

Teachers with high TFSD scores exhibited behaviors on the LOS not significantly different from those with low TFSD scores. Student and teacher rated categories on the LOS did not differ significantly. Loss concluded that selected physical, nonverbal classroom components can be consistently and reliably recorded by observers and that physical, nonverbal data provided objectifiable descriptions of communication events and teaching style.

It was found also that there were frequent discrepancies between the teachers' self-reported preferences and their actual mode of teaching. The researcher suggested that the significant inter-correlation between teachers' and students' non-verbal behaviors demonstrated the subtle but powerful control the teacher has over students. If teachers are truly committed to a given value, they communicate non-verbally but clearly to students who seem to adopt the same values.

SELF-INSTRUCTIONAL MATERIALS

Anderson (1975) developed Guided Educational Modules (GEMS) to address four basic areas of evaluation: validity, reliability, useability, and objectivity. The modules were comprised of accepted standard components -- text readings and slide tape presentations validated in previously developed modules. Units were designed to foster learners' analyses of their own strengths and weaknesses and participation in diagnostic and prescriptive remediation. A well-organized resource center with easily available and clearly identified instructional materials was made available. Care was taken to ensure that directions were clear. Thirty prospective home economics teachers at two universities participated in the GEMS learning experience; nineteen students in one of the universities constituted a control group. The Characteristics of Evaluation Test (CET) was developed as an index of student mastery of course objectives. Confair's Individualized Instruction Attitude Measure was used to measure the affective component.

There were no differences found in pre-test scores among any of the three groups of subjects. Significant differences were found between experimental and control groups on the post-tests and on the three-month retention tests at the .05 level (Behrens-Fisher t for unmatched samples), the difference favoring the GEMs in the immediate post-test. Mastery of course objectives did not appear to be related to previous academic performance. A significant positive relationship was found between students' self-reported attitude toward the individualized mode of instruction and success on the post-test. The study provided tentative evidence that this mode of instruction is well suited to enabling students of varying abilities and backgrounds to succeed.

Scrimsher (1972) developed, modified, and evaluated an instructional package designed to enhance prospective teachers' abilities in relation to empathic understanding, congruence, and regard for

others. The sample was comprised of fifty-five female prospective teachers enrolled in two sections of a home economics methods course. The groups were randomly selected; thirty-two were in the experimental group and twenty-three in the control group. A nine-unit instructional packet (designed to present one topic each three-hour teaching session) was used with the experimental group; the control group had three observations for this amount of time. The units consisted of case studies, examples, incidents, and stories utilizing various media. The units were submitted to a panel whose recommendations were incorporated into the final versions.

The Barrett-Leonard Relationship Inventory (BLRI) Form, MO-F-64, was used to measure four variables: empathic understanding, congruence, level of regard, and unconditionality of regard. The inventory was administered to both groups. Correlations of reliability computed for each scale were: empathic understanding, .91; congruence, .85; level of regard, .79; and unconditionality of regard, .86. A satisfaction scale designed by the researcher was given along with the BLRI in the post-treatment administration. In Part I of this instrument, participants were asked to rate each of the nine sections of the instructional package on a five-point scale in respect to their perceived effects on empathy, congruence, and regard. Part II used the same scale to rate the three techniques used in the packages as well as the efficiency and length of the units. Part III was an open-ended evaluation of the package soliciting recommendations for improvements. Administration of the relationship inventory to both groups after five weeks of student teaching provided opportunity to determine the extent of retention of learning.

Analysis of covariance, using pre-test scores as covariates, revealed no significant differences between control and experimental groups on empathy. Significant differences were found for congruence at the .05 level, regard at the .01 level, and unconditionality of regard at the .05 level. The prospective teachers rated all units as very good; in relative terms, empathy was rated highest, regard second, and congruence slightly lower. After five weeks of teaching experience, the relationship inventory was again administered to both groups. No significant differences were found on empathy; however, a significant difference for level of regard at the .05 level was found. Mean scores of both groups continued to rise during the experience with those of the experimental group higher (but not significantly higher) than the controls.

CONCOMITANT LEARNING

Dittman (1974) studied the concomitant learning which occurred spontaneously as instructors attempted to achieve other learning outcomes. The subjects were nine senior high school home economics teachers who had at some point supervised teachers and the 415 girls and eight boys in their classes. Instruments used in the study were the Autonomy Scale (A-Scale, Thamm, 1968), Farris' Pupil Feedback Instrument and Dittman's Responsive Rating. Responsiveness rating consisted of observation data of a teacher and his or her classes recorded by an observer alert to autonomy and factors which affect it. Each record of teacher behavior was subjected to a panel of ten judges who rated teachers as more or less responsive, based on the data. Spearman rank correlations (reliability .93) were used to determine level of agreement among the judges. The A-Scale (reliability .62) and Pupil Feedback (reliability .90) instruments subsequently were administered to the students.

Pictures emerged of nine unique teaching styles which were carried through all of each teachers' classes. Despite the fact that two teachers may have had identical responsiveness scores, their styles were clearly different. An analysis of the observation record and data from the instruments gave evidence that the home economics teachers were providing a learning milieu quite different from that described in the literature. Numerous authors have provided evidence that schools were fostering docility, compliance, and dependence. Although none of the teachers appeared to be fully aware of the potential in their classrooms for the development and expression of autonomy by students, all in some manner were facilitative of student autonomy and independence.

TEACHING NUTRITION

The study by Schwartz (1973) strongly suggested that whatever methods home economics teachers in one state used to teach nutrition, those methods were not effective. Further evidence for need of work in this area is given by Davis (1971) in her study of extension workers and low-income homemakers. Her findings indicated that nutrition knowledge and dietary quality of meals was low. This is typical of findings from other studies of nutrition among low-income homemakers.

RESEARCH ON TEACHING METHODS

Wilkosz (1975) surveyed beliefs about conducting research on teaching methods among faculty who directed home economics education research or who taught research methods courses. The primary objective was to determine whether the beliefs and the research on teaching methods were consistent with recommendations presented in Gage's 1967 *Handbook of Research on Teaching*. A questionnaire and checklist were developed that included four subgroups and variables related to planning, conducting, and evaluating empirical research on teaching methods. Faculty reactions to the checklistand the writer's judgments identified on the questionnaire were assessed individually and with one another through the use of descriptive statistics and free response written comments. These reactions and judgments included comparisons between and among sets of variables in Group One (general consideration), Group Two (considerations involved in the teaching-learning-evaluating process, independent variables, the learner), Group Three (considerations involved in the teaching learning-evaluating process, independent variables, the teacher evaluator), and Group Four (considerations involved in the teaching-learning-evaluating process, dependent variables, the learner). In addition, comparisons involved responses from faculty who guided doctoral research and those who guided only master's studies or had just finished their doctoral programs and had not yet begun to guide others.

It was reported that the variables which received the most faculty support for inclusion and were the most apparent included traditional research considerations such as theory, statistics, and evaluative procedures (Groups One and Four). Variables in Groups Two and Three received the least favorable support for inclusion and were the least apparent in the studies reviewed. These variables focused on the teaching-learning process. Those receiving the least support for inclusion and minimal attention involved student as well as teacher characteristics and the student/teacher interaction process. Although the responses to the two instruments were relatively similar, the faculty beliefs held by both the doctoral and master's groups toward conducting research on teaching methods appeared more consistent with the recommendations in Gage than was apparent to the writer in the studies reviewed. However, the studies varied considerably. Most of the dissertations were reflective of the recommendations,

while several of the master's theses were somewhat limited. The weakest area at both levels involved the description of the teaching-learning process. Presumably more attention should be given to the area of the teaching-learning process in future studies on teaching methods in home economics education.

SUMMARY

In summary, several researchers developed units that incorporated various "newer" methods of teaching and compared them with "traditional" methods. All testings revealed the newer method to be at least as good in producing achievement. Most proved to be better. These strategies included learning packages plus some traditional instruction, simulation, self-instructional programs, mastery learning method, and instructional modules of readings combined with slide tape presentations. Innovative methods of analyzing teaching behaviors which could be useful in teacher preparation were devised and tested. One system was found capable of providing for consistent and reliable recording of the physical, nonverbal components of the classroom. Another system for recording and analyzing teaching behaviors, while not able to discriminate between classes, produced data that permitted an analysis of level of student cognitive response to the teacher's level of stimulation. Evidence from studies noted in this section (but reviewed elsewhere) also indicated that devising and testing approaches to teaching nutrition other than those based on knowledge of nutrient content of foods and what nutrients fulfill needs of the body is sorely needed.

NEEDS, CHARACTERISTICS, AND INTERESTS OF LEARNERS

Included in this section are two studies of essential living skills needed for multiple roles and one study on family planning needs. Studies of consumer concerns, satisfactions with roles of spouses and parents, and interest of males in occupational home economics courses are also reported. One study provided data on the extent to which enrollment in high school home economics classes was associated with knowledge, attitudes, and practices related to nutrition. One study reviewed background factors influencing career planning by high school seniors.

Research reported in this section also included studies related to special needs populations. Two studies dealt with elderly populations. One study dealt with the integration of handicapped students into home economics classrooms and one described testing a competency-based module on securing employment for a prison population. Studies of teachers' attitudes toward capacity for teaching the handicapped also are presented.

SURVEY OF SPECIAL NEEDS STUDENTS

A survey of special needs students in home economics programs was conducted by Whiteford (1976). In the sample of secondary home economics programs, nearly 9 percent of the females were identified as having special needs. Of the males, over 14 percent were special needs students. Problems identified most frequently were slow learning, problems with mathematics and reading, and behavioral problems (particularly of junior high school boys).

CLASSROOM ACTIVITY CENTERS

Kohlmann et al., (1977) developed instructional procedures and techniques for teachers working with mildly handicapped students along with other students in eighth and ninth grade home economics classrooms. The essential skills for independent or family living were in consumer education: identifying sources of information, analyzing information for completeness and reliability, recognizing that federal laws regulate product labeling so the

consumer may know what he or she if buying and identifying how advertising appeals to consumers. The researchers developed three plans incorporating the use of group activity learning centers in mainstreamed home economics classes. Materials for student use were developed as modules of self-directed activities. The activities were aimed at meeting the needs of both typical and mildly mentally and/or physically disabled students working together in heterogeneous groups. Among the activities were those which would encourage tutorial help from peers, involve concrete experiences, use a wide variety of short activities, and place emphasis upon oral or visual activity. Pre- and post-testing revealed that cognitive growth occurred for both the typical and mildly disabled students. Although the gain was not as great for the mentally disabled students, they were consistent with their learning rate. Student attitudes toward the learning center strategy generally were positive; students responded very favorably to participating as a member of a group. Teachers expressed very favorable attitudes toward the socialization which occurred as students worked together as a group and toward the use of the centers in general.

ATTITUDES TOWARD THE HANDICAPPED

Krieger (1978) developed a multi-media learning experience which provided information regarding techniques of instructing visually impaired students in a clothing construction course as well as the opportunity for developing teacher awareness of abilities of the visually impaired. The two-hour experience involved three components: a general audience film, "What Do You Do When You See a Blind Person?"; an investigator-produced video-taped demonstration, "Sensitized Sewing: Visually Impaired"; and an occluded performance by participants of demonstrated sewing skills. A randomized control group pre- and post-test design, with three treatments at both the undergraduate and graduate levels, was used to study attitude change toward blindness of seventy-eight home economics majors enrolled in various university home economics courses. The instruments used were the 30-Item Attitude Toward Blindness Scale developed by Cown, Underberg, and Verillo, and the Participant Information Sheet, Follow-Up Survey, and Evaluation of Training Session, developed by the investigator. Experimental group independence was determined for the categorical variables of previous contact with visually impaired or physically handicapped persons, previous education regarding handicapped, and involvement in five activities relating

to mainstreaming following treatment. Significant positive change in attitude toward blindness was determined following treatment. Treatment involving the general audience film alone or combined with the occluded simulation experience produced the largest attitude change. Involvement in the occluded simulation experience motivated participants to the most involvement in voluntary activities in the week following treatment.

TRAINING TEACHERS FOR MAINSTREAMING

Two provisions of P.L. 94-142 provided the focus for research by Carpenter (1978) who studied the training of teachers for working with mainstreamed children and their attitudes toward mainstreaming. A sample of state supervisors, teacher educators, and secondary school teachers in home economics was drawn from lists supplied by various state and federal sources. Six of the supervisors were included in the sample, as were the directors of teacher education at 52 colleges and universities granting a bachelors degree in home economics education. Twenty vocational home economics teachers were randomly selected by computer from state department lists, for a total of 120 participants. A three-section questionnaire was developed to collect the following: personal profiles, information on their professional preparation in terms of undergraduate courses, and experiences in working with the handicapped, inservice training, and their opinions on mainstreaming the handicapped.

Results indicated that the majority surveyed lacked any preservice training relating to mainstreaming. No significant differences were found in educational preparation for mainstreaming among the three groups. No significant differences were found in educational experiences provided for working with the handicapped. Little in the way of practical experiences in dealing with the handicapped in the classroom was reported. Significant differences, however, were found between state supervisors, teacher educators, and home economic teachers in workshop and seminar experiences relating to working with handicapped students. Supervisors and teacher educators had significantly greater amounts of such experience. The supervisors reported being significantly more encouraged to take courses to develop competencies than home economics teachers. Significantly more supervisors and teacher educators were actually involved in developing curricular material for mainstreamed students. Home economics teachers felt significantly more strongly that handicapped students needed home economics than did either teacher educators of the supervisors. Teacher educators expressed significantly more negative attitudes

toward mainstreaming than the other two groups. Home economics teachers felt significantly stronger about the need for effective teacher training in this area. The study pointed up the need for the development of effective preservice and inservice programs for working with handicapped students.

PROGRAMS FOR THE PHYSICALLY HANDICAPPED

Redick (1974) studied the characteristics of home economics teachers and the programs for physically handicapped students. The research explored and described knowledge teachers had of handicapping conditions, their tolerance of ambiguity, teaching behaviors, and their professional backgrounds. She also proposed an outline for programs to prepare home economics teachers to work with the physically handicapped. The subjects for the study were twenty-six non-randomly selected teachers chosen because they were known to be involved in teaching neuromuscular or orthopedically handicapped students in fifteen schools in the mid-west. Data were collected through observation, interviews, questionnaires, and other instruments. The five instruments used were: Attitudes Toward Desirable Persons Scale (Yukor, Black & Campbell); Degree of Contact Index (Higgs); Analysis of Teaching Instrument (Clawson); The Ambiguity Tolerance Scale (MacDonald, 1970); and the Knowledge of Handicapping Conditions Inventory (revised by the researcher from Harrings' General Information Inventory). Additional instruments included a form for recording personal and professional data, an instrument to obtain demographic information on the students, a checklist for physical facilities and organization of the home economics program, an interview schedule designed to explore the teacher's educational philosophy, and an interview schedule for principals on the school's philosophy and curriculum. Two-day visits were made to participating schools. Pictures were taken of the physical facilities, classes were observed; instruments were administered, and interviews held.

The majority of programs offered were comprehensive. They emphasized foods, clothing, and personal care; considerably less emphasis was placed on family relations and child development. Both teachers and administrators agreed that the major role to be filled by home economics in the education of the handicapped should be the development of the basic skills leading to self-sufficiency, social adequacy, and positive self-concepts. Teachers indicated a need for program improvement in terms of evaluation and diagnosis of students, curriculum, facilities, and

equipment. Teachers scored relatively high on positive attitudes for persons with handicapping conditions. Several significant correlations were found between scores on the instruments and professional background. These correlations included college degree and knowledge of handicapping conditions, years of teaching experience and positive attitudes toward the disabled, degree of contact with disabled persons and the number of students the teacher met each week. A negative correlation was found between years of teaching and score on the Ambiguity Tolerance Scale. The competencies of teachers identified as most necessary in working with the handicapped were developing and adapting curriculum, understanding needs and characteristics of the handicapped student, and individualizing instruction. The lack of curriculum materials was found to be critical.

USE OF OCCUPATIONAL HOME ECONOMICS MODULE IN A PRISON SETTING

Ambrose (1977) tested the feasibility of a non-graded, competency-based teaching module securing employment in the area of occupational home economics. The instrument had previously been field tested at thirty-two sites at secondary, postsecondary, and adult levels in school and non-school settings. The study investigated the effects of the module on learners age eighteen or older in terms of increased self-concept, performance in simulated interviews, and learner cognitive achievement. In addition, teachers' opinions of the modules were solicited, and the relationships among selected prison learner demographic variables were investigated. Subjects were prisoners previously enrolled in a classroom situation. Treatment and control subjects were randomly selected from this population (treatment 35; control 34). Stanley and Campbell's pre-/post-control group, quasi-experimental design was used. A different teacher taught the module at each of five prison sites. Care was taken that the instructors received equivalent instruction in use of the module. The five instruments were: the *Securing Employment Pre/Post Cognitive Test*, developed to test acquisition of content and behavioral level of the course objectives, a 50-item multiple choice instrument with a previously assessed KR-20 reliability of .86 and an average item descrimination of .33; the *Tennessee Self Concept Scale* (with reliability of its ten subscales ranging from .61 - .92); the follow-up *Interview Performance Test Rating Scale* (interrater reliability of .72 - .85 as assessed in this study); the *Learner Questionnaire* (devised by the researcher to collect information on demographics;

and the 42-item *Teacher Opinionnaire*, a four-choice rating scale tested for content validity.

Data were analyzed using unweighted means analysis of variance (unequal group sized) to test for differences in treatment and control cognitive and self-concepts achievement. Treatment groups at all prison sites had significantly (at .05) higher mean scores for the cognitive self-concept and the interview tests, indicating that the module was successful. Pre-test scores indicated no significant differences on variables studied between treatment and control. The treatment was significantly effective in improving prison learners' reflection of self, particularly in social interactions. Chi square analysis was used to test for relationships between demographic variables and cognitive, self-esteem, self-criticism, or interview performance scores. None of the variables examined (age, sex, marital status, nature of crime, time of parole, or teacher opinion of module) appeared to relate significantly to the scores above.

NUTRITION EDUCATION

Davis (1971) investigated the relations between the quality of dietary intake and knowledge of nutrition concepts, attitude toward nutrition, perception of personal control over dietary intake and personal food preferences. Three populations were sampled: a random selection of 34 Illinois Extension advisers in Home Economics who attended an Annual Extension Conference; a random sample of 34 program assistants in three Illinois Counties who responded to a simplified nutrition knowledge instrument; and 34 randomly selected low-income homemakers residing in Robert Taylor Homes in Chicago. Two instruments were used. Questionnaire I consisted of two 50 item true-false tests dealing with concepts related to the framework for nutrition education adopted at the White House Conference on Food, Nutrition and Health in which respondents were asked to what extent each item was important in selecting a correct diet. Questionnaire II was a simplified form of the first. Questionnaire I was given to the extension agents while Questionnaire II was administered to the Program Assistants and Homemakers. A reliability coefficient of .71 was obtained for Questionnaire I. However, the reliability of the simplified version was calculated at .41 for the program assistants although .81 for Homemakers. It would appear that further refinement of the simplified instrument might be in order. Two 24-hour food recalls provided information on

estimated quality of dietary intake. Results indicated that nutrition knowledge and dietary quality were positively related although levels of both were found to be low in these samples. Food preferences also were significantly related to nutritional quality (.01 level in homemakers, .05 in advisors and Program Assistants.) Additional nutritional knowledge was perceived by the researcher as needed by all three groups. Since food preferences and dietary quality were found to be related significantly in all three groups and since learning theory suggests that incorporating learner interests in teaching approaches promotes maximum learning, the researcher recommended incorporating individual food preferences in nutrition education for such adult groups.

ATTITUDES TOWARD THE ELDERLY

Two studies relating attitudes toward the elderly were conducted at the University of Wisconsin. Miller (1978) assessed consumer attitudes, consumer behavior, perceptions of influences on consumer behavior, and perceptions of internal/external locus of control of the elderly. A stratified sample of 150 adults over sixty-two years of age in rural, suburban, and urban areas were selected for the study. The Consumer Attitude Semantic Differential (Petrich et al.), the Rotter Internal-External Locus of Control Scale, and the Miller Interview Schedule (designed by the researcher) were used to obtain the data. Efforts were made to ensure that questions on the interview schedule were structured to be clearly relevant to the purpose of the study. Face validity and content validity of the instrument were ascertained. A coding procedure was established to reduce the threat to reliability coding that open ended instruments can present. The interview schedule consisted of twenty consumer behavior items and nine demographic variables. Data were analyzed using the statistical techniques of chi square, one-way ANOVA, and two-way unweighted means analysis. A descriptive profile of the elderly consumer also was developed. Based on the profile, the following recommendations were made for objectives, teaching strategies, conceptual structure, and delivery mode of consumer education programs for this group. Programs should focus on problems related to home ownership, e.g., energy savings, taxes, and home upkeep. The influences of marital status on shopping patterns must be considered. Some objectives should deal with the practical and legal problems of earnings and retirement income. For the elderly, understanding and obtaining consumer rights might

be emphasized. Understanding and interpreting advertising also would be an appropriate objective. Programs should be taken to the elderly rather than expecting them to come to them. Finally, it should be noted that the elderly in this study appeared to have considerable feelings of control over their lives. Teaching strategies should take advantage of this feeling of being in control.

Mickelson (1976) investigated the attitudes of adolescents toward the elderly as related to the independent variables of sex, religion, church attendance, number of grandparents living, physical proximity to grandparents, amount of interaction with non-grandparent elderly, national origin, enrollment or completion of high school home economics courses, type and content of such courses, and size of high school. An additional purpose was to relate these findings to curriculum development of secondary and post-secondary geriatric aide programs. The subjects were a stratified cluster sample of male and female seniors from ten Wisconsin public high schools of three sizes: 1000-2999, 500-999 and under 500. A 49-item Likert Scale and eleven demographic items were developed for data collection. Content validity was established by first soliciting the universe of attitudes of adolescents toward the elderly from seniors in three secondary schools. The resulting items were sorted into categories and submitted to a panel of experts. A pilot study was conducted on twenty high school seniors not included in the sample. Items not meeting criterion levels of discrimination, correlation with total score, or a sufficient range of agreement-to-disagreement were excluded from the final instrument. The Split Halves and Spearman-Brown procedure established reliability of the pilot instrument at .815.

Independent variables of religious preference, physical proximity grandparents, enrollment in or completion of a high school home economics course, content of high school home economics course, and size of high school were found not to have any significant influence on adolescent attitudes toward the elderly. However, those who were or had enrolled in high school home economics courses had the most positive attitudes towards helping or working with the elderly. Adolescents reporting the most positive attitudes toward the elderly were female, attended church regularly, had four grandparents living during most of their lifetime, had regular interaction with non-grandparent elderly on a volunteer basis, and were of Scandinavian descent. Differences associated with these variables indicated that curriculum planners cannot assume that adolescents' attitudes toward the

elderly are uniform. No group mean scores fell below the midpoint, indicating that as a group these seniors had relatively positive attitudes. However, results of the study indicated, as have studies on attitudes of adults toward the elderly, that specific factors influence attitudes. Previous research findings on factors influencing attitudes of adults toward the elderly are borne out with one exception. With adolescents, frequency of contact with non-grandparent elderly appears to affect attitudes. The finding that home economics curriculum is not influencing attitudes of adolescents toward the elderly indicates that concepts regarding the elderly (aging education) should be included in home economics courses. Furthermore, as this research revealed that most adolescents had limited contact with the elderly, opportunities for such contact should be built into the curriculum. The researcher recommended that institutions offering home economics education incorporate the field of aging and field experiences with the aging into their curriculum.

HANDBOOK FOR WORKING
WITH MENTALLY RETARDED

A workshop sponsored by Rutgers University (1976) resulted in the development of a handbook to help teachers in working with mentally retarded students. The purposes of the effort were to facilitate understanding of the retarded child; to identify consumer education and home economics concepts, learning experiences, and objectives appropriate to this population; to identify the skills necessary to meet the needs of these students in curriculum development; and to adapt resources for use in the classroom. The systems approach to examining the student in relationship to the total environment was used. Conditions and desired outcomes were identified by the workshop participants for each concept within four basic areas: personal development, interpersonal relationships, home management, and child care. It was agreed that in each of these areas a person must use resources, skills, and problem-solving abilities in an effective manner. Personal development included concepts of currency exchange, leisure activities, and public transportation. Interpersonal relation included dating, use of telephone, and cooperation. Home management concepts were safety, shopping for a family, and care of clothing. Child care consisted of care of an infant, importance of play, and children's clothing. Each of these concepts was addressed in the workshop.

The home economics programs evaluated by Nelson et al. (1978) were

designed for an adult population whose needs were common to persons disadvantaged by poverty and lack of education. This study is reviewed in depth in the section on evaluation.

ESSENTIAL LIVING SKILLS

There is widespread belief that education currently offers little help to young adults who are trying to mature in a society of unusual stress. Although follow-up studies of vocational-technical students report the successes of graduates "on-the-job," little evidence has been presented which establishes whether the graduates are able to succeed in fulfilling such role expectations as parent, spouse, consumer, and community member. Petrich et al. (1972) attempted to determine what life skills graduates of vocational and technical programs needed.

Life skills perceived as necessary were identified, inventoried, and pilot tested. A sample was drawn from the population of graduates (1969, 1970, and 1971) who had completed one and two year diploma and associate degree programs in the Wisconsin VTAE system. From the total population, 1,000 subjects were drawn for each year. Each district was proportionately represented according to its percentage of the total enrollment in the state for each year. The inventory was mailed to 3,000 persons; 1302 useable replies were received. As a group, the graduates were satisfied with their preparation for performing the life skills included in the inventory. However, the ranges of scores and the many highly significant differences in group variance indicated that individuals vary considerably. All differences reported were significant at .01. Married respondents' mean score was significantly higher than the single respondents' mean score. Those persons who had attended a class or taken a course since graduation had a significantly higher mean score than those who had not. Items in the inventory with lowest satisfaction scores included those related to the following: communication skills, consumer skills, discarding old work habits for new, combining family life and work life, and helping children adapt to the changing world, teaching children about reproduction and marriage, and understanding national and international social/political issues. Differences found in satisfaction with life skills imply that curriculum development for education for individual, parent, and spouse roles must proceed differently within and between groups related to the way in which the members of the group perceive their needs.

A study to identify those essential living skills (ELS) perceived as important by men and women in their roles as family members, individuals, and employees was concluded by Monts and Barkley (1978). The underlying concept was that some ELS would be shared by all three roles, some ELS would be necessary for combinations of family and individual roles, some would be needed for individual and employee roles, some for the roles of family members and employees, and others would be limited to one role. An instrument, developed by means of a series of jury panels and field tests, consisted of eighty-seven items. Respondents were asked to check each item as being important to one or more of the roles or not important to any of the roles. Approximately half of the females were to respond to the importance of the items for males; the other females were to respond to the importance of the items for females. The same procedure was followed for male respondents. Sample items dealt with keeping records of money spent caring for children, accepting lines of authority, and keeping job skills up-to-date.

Employed individuals were contacted through listed businesses and a statewide sample was drawn systematically. The sample of homemakers (who were not otherwise employed) was limited to one county. Census tracts were used and randomly drawn. Of the 4929 employed respondents, 2416 were females and 2513 were males. The number of homemakers totaled 124. Statistical analyses included multivariate analysis for significance of differences among the four respondent groups; analysis of variance for determining differences within a respondent group as to mean number of responses per role; and chi-square for differences between observed and expected frequencies for subjects when grouped by demographic factors. Sixty percent of all respondents in a sub-category had to concur before an ELS was considered important. The largest number of ELS's were viewed by all respondents as important for the individual role, followed by family role. Female respondents noted more ELS's necessary for females than for males in the employee role; the converse was true for male respondents. Four ELS's were seen as important for these roles: do extra work; accept responsibility; meet time schedules; plan and organize. Four ELS's were seen as important for none of the roles: apply for temporary leave; grow food; provide for substitute care; use public assistance. Sex stereotyping was reflected in the fact that males noted more ELS's for males in the employee role and more ELS's for females than males in the family role. Females generally concurred with the point of view that ELS's in the family role were more important for females than for males.

Schwartz (1973), a nutritionist, investigated the relationship between previous enrollment in home economics courses and present nutrition attitude, knowledge, and practice of a random sample of female graduates of randomly selected Ohio high schools. Specific independent variables studied were enrollment in comprehensive home economics courses, location of high school attended, size of high school enrollment in advanced level courses and cumulative grade point average. Stanley and Campbell's static group comparison design was used to analyze and compare differences between students who were and those who were not enrolled in the courses. A random sample of 1,000 graduates was drawn. Of this sample, 313 (31.3 percent) responded.

Instruments used in data collection (including two developed by Eppright) consisted of thirty true-false items with a four-point scale of response certainty: Nutrition Knowledge and Attitudes toward Food and Nutrition. A third test was an instrument for assessing dietary intake which measured intake of seventeen specific food groups over three days. Demographic and descriptive data on nutritional practices not related to the groups also were collected. This instrument was pre-tested by nutritionists and revised according to their recommendations. Data were subjected to t tests and, where appropriate, one way analysis of variance scores for significant differences in group means for nutrition knowledge, attitudes, and practices. In a general conclusion, the researcher indicated that previous enrollment in high school home economics courses with a unit in food, nutrition, and health was not found to be a variable consistently associated with scores attained in tests of nutrition knowledge, attitude, or practices. Variables which were found to be significantly related to nutrition knowledge scores were cumulative grade point average in high school and college attendance. Marital status and meal planning and preparation were the variables significantly related to scores in tests of nutrition attitudes and practices. Knowledge of nutrition and positive attitudes toward nutrition were gained from sources other than high school home economics courses, with practical experience in meal planning and preparation making a difference. Results of the assessment of the nutrition knowledge, attitudes, and practices of female high school graduates indicated that they did not apply their nutrition knowledge in their choice of food.

VOCATIONAL PLANNING

Snell (1971) examined the relevance of specific attitudes and status to the vocational plans of 755 high school seniors. She also investigated the effects of inconsistency between status and vocational plans. The researcher hypothesized that the independent variables of attitudes toward marriage, education, career, and work all would affect the dependent variable of vocational plans. Two ascribed status determinants were family background (indicated by parental socioeconomic status) and mental ability (reflected by I.Q.). Two achieved status determinants were participation in extracurricular activities (measured by an instrument adapted from Gordon) and scholastic achievement (indicated by scholastic standing in class). Achieved versus ascribed status determinants were compared to estimate status inconsistency. A questionnaire was used to collect data on the above mentioned attitudes and the amount and type of career planning done by students. Responses were used to develop a Guttman-type scale for each of the specified attitudes. A planning scale also was developed from responses focusing on the quality of planning done for the future. Hence, rather than simply ascertaining whether or not a future occupation had been considered, the scale examined the consistency of the job choice and steps already taken in implementing the plans and alternative plans. Measures of both intensity and closure were included in the planning scale as recommended by Guttman. All scales approached the .60 minimal level of scalability.

The statistical technique of path analysis was used in interpreting the relative importance of the attitude and status variables in predicting the future plans of high school students. The model used for determining path coefficients postulated that I.Q. and socioeconomic status were the determining variables. These, in turn, influenced scholastic achievement; the three variables together determined participation in school organizations. These four background variables were hypothesized to determine the four attitudes which, in turn, had a direct effect on future plans. Results indicated that future planning is a far more complex process than the researcher had postulated. Attitudes had more importance than background factors in determining the depth of career plans for boys, while for girls, background factors appeared more important than attitudes. Although I.Q. and scholastic achievement had no effect on either the attitudes or plans for the future for

boys, they did seem to have either direct or indirect effects on girls' plans for the future. Of particular interest was the relationship between long and short term career plans for girls and their attitude toward marriage. The data illustrated the traditional career-marriage dichotomy faced by girls. Girls with short range career plans associated long term career plans with postponement or rejection of marriage.

FAMILY PLANNING NEEDS

La Fortune (1978) assessed family planning needs of secondary students. Subjects were 265 students in grades 8, 11, and 12 from four sizes of school districts randomly stratified--small, medium small, medium large, and large. Sixty-two parents also participated. Data were collected by a fifty-item inventory which included content in four subject matter areas: the family, food and nutrition, human development, and resource management. Descriptive needs analyses, computed separately for students and parents, showed that students expressed strong needs for thirty-two of the fifty items. Of the thirty-two strong needs items, twenty-nine were assigned as highest priority needs. These items were in areas related to goal setting and attainment, life planning responsibilities, careers and work, parenting and child care responsibilities, and decision making. Items which dealt with parenthood responsibilities and pregnancy issues were assigned very high ratings. Parents expressed strong needs for forty-nine of the fifty items. The majority of the items were assigned high ratings as needs and as needs not met. Parents were unanimous in their expression of need for teenagers to know about pregnancy risks.

A factor analysis of students' responses produced nine factors: (1) planning and decision making; (2) parenting and child care; (3) teenage pregnancy; (4) sex and love; (5) basic nutrition; (6) love and marriage; (7) current societal trends in family life; (8) adolescent social development; and (9) adolescent special responsibilities. The most important factor was Factor 1, planning and decision making; the item with the highest priority of need was to learn to make decisions. Three three-way factor analyses of variance used sex, grade level, and school size to test differences on magnitude of need for representative variables (family planning needs factors). Although all students expressed strong need for the planning and decision-making group of factors, junior high students expressed the strongest need. The researcher

recommended that home economics programs at the secondary level include the broad concepts of family planning, that decision-making skills be given priority in family living curricula, and that programs reach all junior and senior high students. The researcher also recommended that programs be directed to provide curriculum help for both prospective and practicing teachers. Expressed needs of teenagers may be evidence that they are appealing for help -- help that does not appear to be forthcoming from the home or clinical sources.

CONSUMER EDUCATION

Strinden (1975) attempted to assist curriculum planners who are concerned with providing more effective teachers for consumer education programs for low-income persons. Answers to the following questions were sought: How do low-income homemakers perceive the relative importance and relative difficulty of selected consumer activities for low-income families? Are there differences between their views and those held by teachers regarding these concerns? Does teaching experience make a difference in a teacher's judgment? Does unstructured experiential learning (close contact) make a difference in the teacher's judgment? Are there differences in perceptions among selected low-income cultural groups (e.g., Native American, black, white)?

Data were collected from thirty-two home economics teachers (fourteen preservice and eighteen inservice) who were pursuing studies or had recently graduated under a similar curriculum at the University of Minnesota. The population of low-income homemakers (forty-four) was selected from Minneapolis. Census data tract maps were used to identify high density areas of low-income persons and high density areas of selected ethnic groups, Native American and black. Blocks within these areas were selected at random. Unscheduled visits were made to every other family dwelling on the block. Three instruments were used in collecting the data: a Q-sort to secure ratings of importance and difficulty of selected consumer concerns; a questionnaire to obtain biographical and educational data; and an interview guide to supplement information gained from the other instruments. A one-way analysis of variance was used to determine whether the mean ratings obtained from the summaries of the Q-sort ratings were significantly different within and between the groups. A further analysis was made on significant items to examine pairwise multiple comparisons of group means.

There were significant differences between teachers' mean ratings and those of low-income homemakers on selected consumer concerns (20 percent on importance; 27 percent on difficulty). Significant differences were found among black, Native American, and white low-income homemakers on importance (18 percent) but only 7 percent on difficulty. Native American homemakers regarded items related to thrift activities as more important than did black respondents. Teaching experience, *per se*, did not make a difference in the ratings of the teachers. Inservice teachers differed from preservice teachers on only one item out of forty-five on importance and none on difficulty. Unstructured experiential learning that included close contact with the poor did not make a difference in the ratings of the teachers. The differences in perceptions between low-income homemakers and teachers suggested that the teachers may not be cognizant of the environment in which low-income individuals must function. Are colleges providing opportunities for preservice teachers to learn about community banks, stores, and other services available in low-income communities? Indications that neither teaching experience nor unstructured experiential learning made a difference in the teachers' views suggested that greater emphasis may be needed on directed field experiences and on planned observations. Are educators aware of the "concept of goodness" of low-income consumers? For example, homemakers rated "planning nutritious meals" as important but relatively easy to do. Ethnic differences may need greater consideration when programs are being planned. Native American students may be more receptive toward classes stressing thrift and economic concerns than other groups.

MALES' INTEREST IN HOME ECONOMICS COURSES

Sinclair (1976) identified the interests of high school males regarding curriculum offerings which are usually considered as home economics subject matter. The sample was composed of ninety male homemaking students from eighteen schools in Oklahoma. Data were collected by means of a questionnaire which included the following: statements about home economics study in foods and nutrition, getting along with the family, spending and managing money, and choosing and preparing for a job. Questions also concerned the working status of the respondents' parents, the age of respondents, and items concerning paying jobs outside the home and duties around the home. Findings indicated that male students were most interested in studying about choosing and preparing for

a job. Interest also was indicated in the areas of getting along with the family and spending and managing money. Foods and nutrition had the least interest appeal. When analyzed by age groups, those fourteen and fifteen years old had a slightly higher preference for studying spending and managing money; those sixteen and above showed the most interest in choosing and preparing for a job. Regardless of age, the males had a lower interest in studying home economics subject matter when their mothers held no employment outside the home. The students exhibited a high participation rate in both duties around the home and paying jobs outside the home.

CURRENT AND PROJECTED EMPHASES

Minish (1977) compared the current and projected content emphasis of home economics programs at the secondary level and in cooperative extension programs to determine the differences between current and perceived future needs, to rank the current and projected needs in terms of amount of difference in content emphasis, and to describe overall patterns in current or projected content emphasis. An additional purpose was to correlate assessment of curricular content needs with demographic data on home economics teachers and extension agents. A sixty-item scale for rating content was utilized. Respondents were asked to rate each item in terms of the emphasis currently given and the emphasis which should be given in five years. A Pearson product yielded a correlation of .80. In addition, a summer graduate class was asked to classify the items according to the subject matter each represented and to rate them current, traditional, or transitional. This information was used in developing the classification scheme for the study. A pilot study aided in revising the format of the questionnaire.

A systematic sample was drawn from all home economics teachers listed in the 1976-77 directory of the Home Economics Division of Virginia and the extension agents listed in the 1977 Extension Directory. Responses were obtained from 118 teachers and sixty agents. No responses at the two extremes of the seven-point scale (no emphasis/great emphasis) were obtained. Home economists were found to give the most emphasis to traditional items (food, nutrition, clothing). Values clarification also was emphasized. Nontraditional content such as unemployment, death education, and family counseling received the least emphasis. Extension agents also placed emphasis on traditional items but included some nontraditonal, current items.

The traditional concerns of foods and nutrition ranked highest in emphasis, but the nontraditional items of consumer and managerial concerns also were emphasized. Items least emphasized by extension agents were those considered the domain of the public school system. Teachers were found to place more emphasis than extension workers on all items.

In terms of projected emphasis, both groups increased an average of 1½ on the emphasis scale. Current social and environmental problems were seen as receiving more emphasis in the next five years, while nutrition and foods were seen as maintaining emphasis. Also included in the future high emphasis category for both groups were management and consumer education, metric conversion, inflation, and energy conservation; these categories were not emphasized presently but both groups felt they would be emphasized in the future. By and large, extension agents placed greater emphasis on self-development and roles/career than teachers; however, both groups perceived the greatest projected emphasis to come on family/child development and consumer education/management. No conclusive evidence about the effects of the demographic variables on perceived program needs was found. The researcher recommended that degree programs continue to emphasize traditional content but incorporate nontraditional areas, e.g., nutrition and clothing using the metric system exclusively. Inservice programs should reflect the projected areas of emphasis.

SUMMARY

In summary, in the studies covering several types of populations in which respondents expressed their needs, the following were clearly indicated: parenting and child care responsibilities, pregnancy issues, consumer skills, and planning careers. Home economics and extension home economics teachers stressed consumer and management education and family and child development issues. Findings from elderly respondents indicated the need for consumer education programs with focus on problems of home ownership. These findings should give some direction to future activities in curriculum and materials development and program implementation.

Nutrition education was not expressed as a major need. Previous enrollment in high school courses with a unit dealing with food, nutrition, and health was not a variable associated with nutrition knowledge, attitudes, or practices. Female high school graduates, whether they had taken home economics or not, were found not to

apply their nutrition knowledge to choice of food. Levels of nutrition knowledge and of dietary quality were low in disadvantaged homemakers served by the U.S. Department of Agriculture's expanded food and nutrition education program. They also were low for the paraprofessionals who taught the homemakers and for the agents who supervised the paraprofessionals. Searches for new approaches to nutrition education appears to be needed.

Researchers evidenced interest in a variety of aspects related to special need populations but most were concerned with preparing teachers to deal with handicapped learners. Among the important aspects reported were awareness and identification of special needs students in home economics classrooms, provisions in the regular classroom for special needs, techniques of instruction for the visually impaired, and characteristics of home economics teachers already serving the handicapped. Further research will be needed in this area. As of 1978, teacher educators and supervisors were identified as having been exposed to concepts of working with mainstreamed learners through courses, seminars, and workshops. However, teachers expressed themselves as having had little help in this area. Nevertheless, it was teachers who strongly felt that handicapped students needed home economics and that they, as teachers, needed preparation in working with the handicapped.

CURRICULUM AND TEACHING MATERIALS

As was the case in 1970, more studies in the area of curriculum and teaching materials development were available for review than in any other aspect of home economics education. Sixteen are noted in this section. Curriculum materials were produced for several different related audiences: three for general consumer-homemaking classes, one for occupational home economics, three for learners with special needs, two for teacher education, and one for adult education.

Of particular interest to curriculum developers is the study on essential living skills by Monts and Barkley in 1978 (reviewed the section reporting characteristics, needs, and interests of learners). The living skills were those relating to the roles of family members, individuals, and employees.

Findings from other studies -- reviewed elsewhere in this report -- also have implications for curriculum development: the 1977 Minish study of needs assessment of home economics and family resource programs and the research by Strinden in 1975 (both reviewed under characteristics, needs, and interests of learners); the research by Siewart in 1978 (reviewed with competency-based teacher education studies); Miller's 1978 research on consumer behaviors and attitudes of the elderly and Mickelson's 1976 study of adolescents' attitudes toward the elderly (both reviewed in the section on learners with special needs). Several studies had implications for the development of curriculum and teaching materials.

RELATION OF PHILOSOPHIC POSITION TO CURRICULUM BELIEFS

Swan (1975) saw three problems confronting home economists in higher education: the basic conflict concerning the nature of the field, the failure within the profession to communicate to others the meaning of home economics, and the general lack of research. She suggested that these problems can best be solved by a philosophical "awareness." Once such an awareness is achieved, communications can be opened, and compromise can occur. The purpose of her study was to identify the nature and range of philosophical beliefs, to examine whether or not these

beliefs could be classified as belonging to one of two philosophical positions, and to check for consistency between expressed philosophy and espoused curriculum. The two broad philosophical categories are termed Position I, which places primacy on the development of a self-fulfilled human being, and Position II, which favors attainment of knowledge as an end in itself. Position I is postulated to favor pupil-or experience-oriented curriculum; Position II is a traditional, subject-centered, teacher-directed curriculum.

Two instruments were developed for the study: the *Philosophy of Education* measure, a thirty-five item, agree/disagree response instrument test, and the *Beliefs About Curriculum* test, a thirty-five item forced-choice instrument. Subjects were 100 randomly selected individuals from each of the subject matter sections of the College and University Professional Section of AHEA. Responses were received from fifty home economics education teachers, forty-five family relations and child development specialists, forty-three clothing and textiles faculty members, and thirty-seven food and nutrition professors. A total of 175 valid returns were received from the mailed questionnaires.

ANOVA results testing for differences in philosophical outlook among the four subgroups of respondents found significant ($p<.0001$) differences in both philosophy and curriculum. However, among all subgroups there was a tendency to gravitate toward Position I. Contrasts of the four teaching areas showed significant differences in philosophic positions between faculty in family relations and child development and those in nutrition and textiles and clothing. Significant differences were also found between those in home economics education and food and nutrition. Child development and family relations faculty tended most strongly toward Position I. These were followed in rank order by those from home economics teacher education, textiles and clothing, and food and nutrition. (Rank order correlation using the Spearman Rho resulted in a correlation of 1.00). A Pearson reliability test yielded a positive .55 correlation between measures of educational philosophy and curriculum belief.

Philosophic positions and beliefs about curriculum of faculty in the four subject areas did not appear in any way related to the demographic variables studied. Further analysis of subjects at the upper and lower extremes on the philosophy and beliefs measures showed highly significant correlations with experience in higher education and age. These differences were consistent with earlier findings. The very high correlations between philosophy of education and curriculum beliefs indicated the importance of philosophy in determining practice. These findings point out the need for faculty to identify clearly their philosophical positions and, where necessary, revise curriculum to reflect authentic philosophical values.

CURRICULUM FOR CONSUMER-HOMEMAKING PROGRAMS

Teachers of consumer education have found it impossible to teach consumers all they need to know in our rapidly changing world. A need has been expressed for a curriculum which teaches consumers to question and evaluate purchases critically. Murphy (1974) responded to this need by developing a four-part curriculum guide entitled, *Consumer Education Curriculum Modules: A Spiral Process Approach.* The four modules address the processes involved in adopting a critical approach to consuming: acquiring information, exploring values, making decisions, and taking action. The curriculum provides exercises in each of these processes, emphasizing not the facts the students learn but the processes used in coming to conclusions. Each of the modules is divided into stages for easy identification of learner progress in the four processes.

The modules are designed for use with learners from ninth grade students to adults in either class or non-class situations. Included also are pre- and post-tests to assess learning related to each module and an overall behavior inventory which identifies consumer competence level. Instructional objectives for each unit are identified, and related readings suggested. This curriculum is designed to supplement existing curriculum materials by stressing the processes involved in making educated consumer decisions.

Four levels of consumer activity are shown in a behavioral framework. At level I, consumers have poorly developed notions of their real needs, tend to be impulsive, and do not evaluate purchases critically. At level II, the consumer is beginning to clarify values, but decisions may be based upon poorly thought out hypotheses. The level III consumer is capable of integrating facts and personal values in making decisions. The consequences of action are considered before a decision is reached. At level IV, the consumer is skilled in the above and is capable of setting priorities and developing policies which are capable of influencing public and private sectors of the economy to consider the current and future well-being of humanity.

A six-step spiral approach is used to provide repeated exposure to the processes at different levels of complexity which are necessary for learning. The spiral approach also provides the teacher flexibility in responding to the changing interests of students and their increasing ability to deal with abstractions. Included in the teacher's guide is a description of the development of the model for spiral-process consumer education, the behavior inventory and its development, and recommendations for using the curriculum with special groups such as adult learners and vocational youth groups. In developing the modules, over 500 instructional materials and pieces of curriculum representing materials developed by state departments, universities, industries and school districts were reviewed. Few of these materials were thought to be able to address consumer education in any depth. Very few provided for pre- and post-assessment of consumer concepts learned.

These modules were pretested on a sample of 4,893 learners. Eighty percent were in secondary school, 10 percent were adults, and 10 percent were in postsecondary schools. To assess the quality of the modules data from both the behavior inventory and the post-assessment, devices for each module were examined. Over half of the sample scored higher on the post- than the pre-assessment of the behavior inventory. A statistically significant difference ($p<.05$) was obtained. A similar relationship was found between pre-and post-module assessment. A relationship between the length of time a module was used and the post-module scores was observed. Teachers were particularly impressed by the creativity sparked in their students using this approach and by the flexibility of the units. Students' judgments of the worth of the instruments were positive. Some revisions in the

modules were made as a result of the field test. These revisions were then tested on the learners by regional teachers. In particular, statements of objectives were revised and the assessment devices rewritten to address these objectives.

The module assessment devices were designed to be criterion rather than norm referenced. They were judged to have both construct and content validity. Test-retest with Pearson *r* resulted in reliability coefficients which ranged from .72 to .96. The average reading level obtained was grade nine. The behavior inventory was developed to measure the learner's progress in the framework of consumer behaviors. Construct and concurrent validity were assessed by a panel of judges. Items upon which the judges did not agree were discarded as were questions to which the sample did not respond as predicted; *t* values for each item were calculated using the lower 27 percent and upper 27 percent of the distribution. All *t* values obtained were significant at the .001 level.

Vaughn (1974) constructed a list of conceptual statements appropriate for use in developing curriculum for home economics grades 5 to 8 and also evaluated the importance of the structure by means of a national survey of four groups of randomly selected home economics educators: teachers of grades 5 to 8, state and local supervisors, college and university educators, and student teachers. Techniques common to historical and survey research were used to derive the conceptual structure and assess its importance for home economics programs in grades 5 to 8. Validity determination of key concepts and subconcepts was well established. Sampling procedure was carefully thought out and carried through. A pilot investigation was used to determine the appropriateness of the conceptual statements. An 83 percent response rate to the survey was obtained. Data were analyzed using Pearson Product Moment correlations; reliability coefficients on the 5 subscales ranged from .882 to .947. Hypotheses were tested for significance using ANOVA and F-test.

Hypotheses stated that there would be agreement among all four groups of home economics educators on the importance of conceptual statements for grades 5 to 8 in five key areas: human development, family environment, clothing and textiles, food and nutrition, and consumer education. Results of the pilot study reduced the 198 conceptual statements to 150. Home economics educators appeared more likely to accept concepts related to foods and

nutrition, clothing and textiles, and consumer education than those related to human development and family environment when determining appropriateness of curriculum for these grades. Items consistently judged in the upper 20 percent of importance were concerns about physical and mental health, development of self-concept, peer and family influence on developing value systems, and impulse buying. Concepts consistently judged in the lower 20 percent of importance were storage arrangements, family crisis, credit, and other consumer concerns.

Mini-units for co-educational classes in the middle school were developed by Ford (1976) in response to requests for materials free of sex bias. (See also section on sex-role stereotyping.) These units were developed in such a fashion that there was considerable overlap and coordination in the information presented among the various units. Excellent use of skills developed in one unit is made in subsequent units. The units were designed for easy use by the teacher; the activities and resource materials associated with each concept are written on the same page on the same line, and optional activities are recommended. Exercise sheets, sample job applications, and other support materials are included. Emphasis is placed on student-teacher interaction. Although much input is expected of the students, this is balanced by emphasizing the supportive role the teacher must play in this type of learning situation. A total of 205 mini-units were developed.

Fassett (1977) prepared a planning paper for consumer-homemaking teachers' use with Future Homemakers of America groups. Suggestions were offered for program development, support and materials available from headquarters staff, type of projects that can be successfully carried out, and integration of chapter activities and the home economics curriculum.

CURRICULUM FOR ADULT CLASSES

There appears to be a general lack of information on basic management principles, resources, and procedures involved in teaching home management in adult classes. Pershing (1975) suggested that identifying established family policies could provide a basis for curriculum for adult classes, facilitate discussion of policies and underlying value systems, and promote

communication. Her research was planned (1) to identify family policies relating to goal selection, handling of resources, and living conditions concerned with the family structure and functions as the unit interacts with the environment; (2) to study the relationship between the family policies established and the demographic variables of employment status, number of children, age of oldest child, age of respondent, educational level and occupation of spouses and family income; and (3) to apply the results to incorporating family policy as a subtopic of management and family setting in adult education.

A list of 108 general family policy problem situations was developed and validated by a literature review and by interviewing home management instructors. Items were selected on the basis of their applicability (1) to the specific issues at hand -- selection of goals, acquisition and handling of resources, general living conditions, and family roles and styles; (2) to the stages of the family life cycle; and (3) to other social systems in the environment. In addition, the items represented recurring situations of sufficiently broad scope to be used as policies. The selected items were referred to a panel of ten experts in home management to establish content validity and to elicit further suggestions for improving the quality of the instrument. To determine the extent of the establishment of family policies, a 99-point response pattern was used, with numbers ranging from 1 (no policy), through 50 (does not apply), to 99 (a definitely established policy).

After pre-testing, a random sample of home economics adult education classes from Iowa was taken; this resulted in the selection of three classes in each of fifteen area vocational districts. Five hundred questionnaires were distributed; 279 were useable in the analysis. Data from the questionnaire were analyzed in a two-step process. First, factors from the 108 questionnaire items were identified through factor analysis; then relationships between the demographic variables and the factor score were studied. To investigate the relationships, factor scores were computed for each subject, and correlation coefficients were computed for each factor score and each demographic variable. The Spearman Brown average inter-item procedure resulted in factor reliabilities ranging from .79 to .48. Thirty-two factors were identified, with a third of the respondents reporting that they had established policies for

handling at least twenty-eight of the thirty-two factors; low scores for six of the factors were reported by another third. The following (in order of frequency) were the most frequently mentioned factors: preserving and organizing family records, mealtime, care maintenance, household maintenance, communication, family budget, instrumental activities, household production, and physical activities. Demographic variables and factor scores found to be related were paired as follows: employment status of respondents with working spouse; number of children -- with children paid for work they do at home; age of oldest child with guidance and discipline and with developing human attributes in children; age of respondents with guidance and discipline of children; educational levels of respondents and spouses and occupation of spouses with adult education opportunities; and family income with future-oriented goals.

CURRICULUM FOR OCCUPATIONAL HOME ECONOMICS

The national study which Beavers (1979) undertook (reviewed in detail in the occupational home economics section) provides competency statements on the tasks performed in four occupational areas: fashion merchandising, fashion design, apparel services, and window treatment services. White (1972), after studying postsecondary child development programs, designed a broader and more flexible curriculum guide. The intent of the guide was to incorporate a lattice-ladder concept for greater career mobility among program completers. (This study is reviewed among those relating to occupations in home economics.)

CURRICULUM FOR LEARNERS WITH SPECIAL NEEDS

Consumer-homemaking educators at the Choctau General Educational Development Program (1975) in Philadelphia, realizing that available textbooks were not appropriate for their disadvantaged adults, devised more suitable "Micro-units." These materials included (1) a basic nutrition unit; (2) a four-unit section on food purchasing; (3) a dieting unit; (4) a taste party in which unfamiliar foods were described and new recipes given; (5) a money management unit which emphasized obtaining credit, how

to apply for it, and how to evaluate various credit sources; and (6) a budgeting unit which also analyzed different types of life insurance and taxes. The student course evaluation forms also are included in the report.

The interest and support among the Choctau students was noticed by other agencies in the community. As the program developed, numerous attempts at interagency cooperation were made. More formalized coordination between the health and social services and the adult education programs was a direct result of these attempts. It was agreed that adult education in consumer and homemaking skills should add items on fighting inflation by more enlightened food buying. In order to coordinate with this unit, social services began a program introducing the use of food stamps. The researchers noted that this program demonstrates the effects a responsive consumer and homemaking curriculum can have on a disadvantaged community and other agencies working in the community.

Researchers from three states (Indiana, New York, and Ohio) collaborated to develop and, subsequently, test two courses preparing disadvantaged pupils for homemaker and wage-earner roles (Nelson et al., 1975). Both courses were planned to orient pupils to a possible dual role in life. Emphasis in one was oriented to homemaking and in the other to preparation for jobs in food service at the entry level.

A three-week workshop for selected teachers was held at one the cooperating universities. The aims of the workshop were to sensitize the teachers, gain insight into the needs and characteristics of disadvantaged youth, analyze feelings and perceptions which influence teaching, develop the home economics curriculum plans, and select or develop materials for the curriculum. Twelve experimental groups and twelve control groups of high school pupils identified as disadvantaged and potential dropouts were involved in a pre- and post-test design. Six treatments were tested. Treatment I (the basic treatment) consisted of a course, meeting for two consecutive school periods per day, which focused on the dual roles of homemaker and wage earner. The teacher helped develop the course and received special training. She arranged for a supervised work experience for the pupils and was available to the pupils in a conference period each day. Treatment II included the basic

treatment reinforced with home contacts and the use of community resources. Treatment III included the basic treatment reinforced with use of school and community educational resources. Treatment IV included the basic treatment reinforced with a combination of the resources of II and III. Treatment V was the basic treatment taught by a teacher not specially trained in its use. Treatment VI consisted of a course focused primarily on the role of homemaker taught in two consecutive class periods each day by a specially trained teacher. This treatment featured a regular conference period for students and reinforcement by social and educational agencies. The efficacy of the courses was tested with 139 pupils in experimental groups and 147 in control groups.

Instruments were selected or developed to measure pupil progress toward objectives of the courses. All were acceptable in terms of established validity. Reliabilities of the instruments were as follows: achievement test (homemaking and employment), .65 - .76; achievement test (homemaking), .73; Scale of Self Concept, .62 - .68; Rotter's Locus of Control, .47 - .51; Attitude Toward Marriage, .62 - .73; Attitude Toward Child Rearing, .55 - .71; Attitude Toward a Dual Role for Women, .80 - .83; Attitude Toward Work, .77 - .83; Becoming Employable Rating Scale, .75; On-the-Job-Management, .75; safety, .81; sanitation, .79; (the same scales adapted for the work of the home, respectively, .97; .99; .97); descriptive rating scales for specific job skills of cafeteria counterperson, .92; waiter/waitress, .89; cook's helper, .91; dietary aide, .78; short order cook/lunchroom counterperson, .74; Homemaker Meal Service Rating Scale, .98; My Job Satisfaction Scale, .85; Employer Rating Scale, .75.

An analysis of variance determined the between-school differences on the variables under study. They were small relative to within-school variation, thus permitting pooling of all data for each treatment. The *t* test and the chi-square test determined differences; the nonparametric sign test assessed direction of gain score difference between pre- and post-test and post-test/ retest results on measurement instruments. The strongest evidence of gain for pupils in the course oriented to wage earning was in terms of their self-concept, feelings of self-worth, equality with others, and respect for themselves. Attitudes toward work moved in a positive direction and continued positive when measured a year later. The pupils gained in characteristics enhancing employability.

Pupils in the wage earning course made gains more consistently than those in the homemaking course. However, pupils in the homemaking-oriented course, compared to the control groups, gained and retained more positive attitudes toward work; and their academic records improved for the year of the experiment. The courses did not serve to improve school attendance or keep pupils in school during the succeeding year. Gains in knowledge apparently were lost by the end of the year following the experimental courses. Strong impact on pupil attitude toward a self-sustaining marriage and desirable child-rearing practices were not seen. There was only a limited contribution of the courses to positive attitudes toward a dual role for women. However, pupils believed they had learned, teachers believed this, and employers indicated satisfaction with work performance.

The compensatory agency resources, as utilized by teachers, did not make any impressive contribution to helping pupils achieve the objectives of the courses. The complete and specific curriculum design for the project was found to be used effectively by teachers who had not participated in its development and/or had not received special training related to its use with disadvantaged students.

Dougherty (1977) compiled a volume of program procedures, educational strategies, and teaching materials related to consumer and homemaking programs for the disadvantaged. They are the contributions of vocational home economics educators in Wisconsin and appear to be a rich source of programming information.

CURRICULUM FOR
TEACHER EDUCATION

The purpose of Stuart's (1974) three-phase study was to develop, implement, and examine the feasibility of self-contained instructional units for use in formal courses or as self-paced materials in field experiences for supervising teachers. In Phase I, forty-four teacher educators were randomly selected from a list of 362 names supplied by the USOE; thirty-four supervising teachers were randomly selected from lists supplied by universities; and twenty-one student teachers were selected from Georgia College and Southern Illinois University. This

sample was asked to identify the fifteen most essential competencies for supervisors of student teachers from a survey of fifty competencies from the research on supervision skills. The survey was assessed for validity by a committee at Southern Illinois University and pre-tested on a group of sixteen teachers enrolled in a supervision course. Teacher educators were found to place more emphasis on competencies related to professional development; supervising teachers emphasized instructional competencies; student teachers selected competencies related to management and evaluation. All three groups agreed that enthusiasm for teaching was the most necessary attribute. The relationship between the student teacher and the supervising teacher in evaluating strengths and weaknesses also was judged important.

Phase II involved development of competency based modules. A basic format of five components was selected: the essential competency for the concept of the module; performance objectives; exercises to assist teachers in developing or improving the competency; self-assessment devices; and enrichment resources. Modules were completed for two competencies judged to be most essential: "demonstrates enthusiasm for his/her profession" and "provides for opportunities for interaction between student teacher and self." In Phase III, a panel of ten judges was asked to evaluate the two completed modules. A four-point rating scale was used to evaluate each module in terms of appearance, format, component parts, and adaptability for use in the field. Judges rated the materials as 3.4 in adaptability and 3.1 in terms of acceptability as a form of individualized instruction.

Among other useful materials with special emphasis on disadvantaged students are those produced by Waggener (1973) for home economics teacher education students at Murray State University. In addition to the broadly defined general objectives, more specific conceptual and content outlines were developed.

Oppert (1976) developed and tested a correspondence course on metrics for home economics teachers. The two-semester course used a variety of information and resources in a five unit sequence, designed so that students would pass through five stages of adoption (awareness, information gathering, application, trial, and adoption). In addition, the course was planned so that instructors could teach in a similar fashion.

SUMMARY

In summary, developers of curricula and teaching materials serve a wide variety of audiences: middle school, junior high, and high school students; postsecondary students; special needs learners; and students in teacher preparation programs. Some developed modules or units of instruction, others curriculum guides. Some provided bases for curriculum in the form of competency statements, conceptual statements, or identified family policies. A complete self-instructional course, initially used by correspondence, was developed to help teachers convert to metric system use.

SEX-ROLE STEREOTYPING

Legislation prohibiting sex discrimination in federally assisted education programs has numerous ramifications which have caught the interest of home economics education researchers. Among the reports included in this review are five research studies and three reports of curriculum materials development. Two of the research reports deal with sex stereotyping in educational materials; three studies relate to attitudes and expectations. A pilot project of inservice education to reduce sex-role stereotyping in vocational education also is reported.

REDUCING SEX-ROLE STEREOTYPING

Farris (1977) set out to devise, implement, and evaluate an inservice program which would encourage home economics and other vocational teachers to reduce sex stereotyping in interpersonal and family relations. The sample was composed of teachers at Board of Cooperative Education Service (BOCES) schools in central New York. The stratified random sample was drawn from rural, mixed, and urban districts. Control and experimental groups were selected and inservice programs conducted for experimental groups. Pre- and post-assessments were carried out. The evaluation instruments (mainly developed by the author and her staff) and their estimated reliabilities (where available) were as follows: The Openness to Innovation Scale (.95) provides a measure of a teacher's willingness to consider new ideas; The Feminism Scale (.83) is concerned with one's overall view of women in the variety of roles available in society; Expanding Marital Roles (.90) is a Likert-type questionnaire which measures attitudes toward husbands and wives assuming non-traditional roles; Teachers' Expectations of Students is a three-part semantic differential scale to measure possible stereotyped differences between teachers' assessments of typical boys and girls; The Knowledge Quiz is a true-false instrument which assesses general knowledge of the concept of sex stereotyping and its effects. Because there were so many tests to administer, some were randomly distributed among the population. Some difficulty was encountered obtaining cooperation of the selected subjects. Feedback indicated that the after-school hours of the program and the state forms to be filled out were deterrents. Comparisons for equivalence on the six questionnaires indicated that the controls were significantly more open to change than the experimental subjects.

Hence, there was reason to question equality of the two groups. Both groups showed sex stereotyped perceptions of students.

Results indicated very little change in the attitudes of program participants. This may be partially due to the dissimilarity of the groups. It is more likely, however, that it is not feasible to expect a six-hour workshop to induce major changes in attitudes. Further analysis of the data by sex indicated that females had fewer traditional notions about the activities of women. This suggests that the program should expend greater efforts in changing the men's more biased perceptions. As it became clear that a six-hour workshop could hope to do very little in terms of affecting all vocational educators, the project emphasis shifted to investigate alternative workshop designs. Goals of the project became (1) evaluating available resources, (2) identifying appropriate instruments for evaluating program objectives, (3) pilot testing the program, and (4) developing and making available a source book for conducting programs.

DESIRABILITY AND PROBABILITY OF TITLE IX OUTCOMES

Nies (1978) investigated the opinions of vocational center teachers regarding the desirability and probability of Title IX implementation on their programs, identified obstacles to implementation, ascertained how teachers were informed of the legislation, identified the extent to which they were involved in composing their districts' Title IX compliance statement; and investigated whether the effects of Title IX implementation were perceived as different for male and female students. The disproportionate random sample consisted of 244 teachers: 58 in health occupations; 54 in personal and public service (a majority were home economics teachers), 31 in agriculture, and 50 each in business and industry. The instrument designed consisted of four parts: a 22-item Likert scale soliciting information on the anticipated changes and desirability of implementation; seven questions on how teachers were informed of the legislation, a list of fourteen potential obstacles to implementation, and questions relating to characteristics of the respondents.

Results indicated that 51 percent of the respondents simply had not been informed about Title IX. The majority of those who were informed noted that their source of information was faculty meetings. Less than 10 percent had been involved in developing their school's compliance statement. However, 55.8 percent would like to participate in such activities. Of these, 72 percent noted that the form of involvement they would prefer was inservice programs. A major obstacle to implementation of the legislation was perceived as male students not wanting to take traditionally female classes. Fewer respondents saw disinterest of female students in the traditionally male classes. Parental attitudes toward their sons or daughters taking nontraditional classes were perceived as a similar obstacle. Seventy-five percent of the teachers saw counselors encouraging students to enter traditional classes. Employers' willingness to hire students trained in nontraditional skills was seen as a greater problem for females than males. Teachers in personal and public services were the most positive concerning desirability of the Title IX outcomes. As a group, the vocational center teachers were more positive about the desirability than the probability of Title IX outcomes being observed within the next five years.

STEREOTYPING AND BIAS IN EDUCATIONAL MATERIALS

Weis (1979) reviewed home economics textbooks published between 1964 and 1974, many of which still are used in home economics classrooms. The study examined these booklets for sex bias in the gender of the target audience, the use of masculine and feminine pronouns, photographs portraying males and females in selected role environments, and the psychosocial role behaviors encouraged for males and females. In addition, the researcher looked at whether such factors differed in textbooks grouped by subject matter or year of publication. (Not taken into account was the number of books in a given area published per year which might influence year-to-year variability.) Chi-squared tests of significance of percentages of males-females in each factor were used. Content validity of the four types of data collection was established.

Sex-role stereotyping was evident in clothing and textile texts in all four aspects. Foods and nutrition were female-oriented in pronoun use, reference to specific individuals, role environments, and photographs. Housing and art textbooks were fairly equitably distributed between the sexes; however, males tended to be depicted in outdoor and females in indoor roles. Human development and family relationships texts were the most equitably distributed. Books in management and consumer education also were fairly equitably distributed but tended to emphasize nurturing roles for females.

Concerned with the idea that home economics is perpetuating traditional roles of women in society rather than reeducating them for new roles, Krosky (1974) also investigated textbooks and materials used in the teaching of home economics. Units in child care, foods, family relations, consumer buying and/or management were selected for study in four high schools. Four teachers, each of whom had at least fifteen years of experience in home economics and who were active in developing curriculum change, were the primary sources of information on the material used. Content analysis was conducted of the visual components in which humans were depicted. Categories in which sex role differentiation was identified included active versus inactive representation, occupational choices, recreational choices, home management, consumer buying, and food related activities. Results indicated that sex stereotyping did appear in the materials. For example, males were depicted pursuing a number of occupational choices, whereas women were restricted to a few traditional occupations; males were shown as more active than females, and females were depicted more often than males as performing nurturing activities.

ATTITUDES, PERCEPTIONS AND EXPECTATIONS

Bentivegna (1974) studied home economics as a sex-typed profession (98.5 percent female). The primary objective of the study was to develop an instrument for assessing attitudes of professionals toward acceptance of members of the opposite sex into a sex-typed field. The influence of professional commitment upon acceptance of members of the opposite sex and the effects of selected demographic variables upon acceptance were examined. Every

tenth female and all the males listed as members of the American Home Economics Association were contacted. The sample consisted of the 211 females and the 59 males who responded. The Sexist Attitude Inventory (SAI) was developed from the responses of 175 male and female home economics graduate students to a questionnaire on attitudes toward placement of men in home economics. The final instrument consists of nineteen positively stated and twenty-seven negatively stated attitudes. On the final sample, a reliability of .826 (Rabinowitz and Eikeland ANOVA reliability) was computed with a mean intercorrelation of .094. The inventory of Loftis' (1962) Measure of Professional Commitment were mailed to subjects.

Results (*t* test) indicated that there appeared to be no correlation between level of professional commitment and attitudes toward acceptance of males in the field. One-way ANOVA indicated no significant relationship between professional salary and acceptance. Individuals holding office in professional organizations were found to be significantly ($p<.01$) less willing to accept males than non-office holders. This was the only one of the ten indices of professional achievement (conducting research, participation in national or academic committees, consultant, authorship, offices in professional organizations, achievement of tenure, presentation, publishing in journals, academic degree) which was found to have a significant relationship to acceptance of males. As only one of the ten variables associated with professional achievement was associated positively with acceptance, it was concluded that the variables do not systematically influence attitudes toward acceptance. Among demographic variables examined by *t* test, a significant difference ($p<.01$) showed males to be more accepting than females. Age was not significantly related nor was length of work experience. Additional analysis showed that length of time in home economics significantly affected acceptance. Those in the field for a shorter period were more accepting. The researcher suggested that this may reflect the fact that females in the field for a longer period may have encountered considerable discrimination and may now have reservations about men entering the field. The SAI is recommended for use in examining sex discrimination in other fields.

Heinsohn (1974) studied 950 female college seniors to determine the relationship between sex role equality attitudes and expectations for careers. Four socioeconomic status levels -- very low, mid-low, mid-high and very high -- were devised from data on father's education and occupation and parents' income. Indices were developed, one of which described the subjects as being traditional or non-traditional with respect to their sex role equality attitudes. The other described the subjects' work/career expectations as family oriented, uncommitted, or career oriented. One-third of the sample was found to be traditional and two-thirds nontraditional. Traditional women were more likely to be of low socioeconomic status. Their work/career expectations were most often characterized as family oriented or, less frequently, uncommitted. Nontraditional subjects were more likely to be uncommitted; if not uncommitted, they tended to be career-oriented. Nontraditional, uncommitted women appeared to have an intellectual concept of sex-role equality but seemed unable or unwilling to carry this over to include clearly defined work/career expectations.

Arms (1974) examined the expectations and preferences for marital and parental roles of university freshmen and the relationships of such expectations with the following variables: sex, home background, parental income, residential status, parental occupation, marital status, and racial/ethnic background. Three specific marital and parental role relationships were investigated: (1) the traditional, which includes sexual division of labor and authority; (2) the equalitarian, in which there is no division of labor along sexual lines; and (3) the non-conformist or experimental, in which roles are reversed from the traditional. The role of fathers in parenting and marriage, largely ignored in research also was investigated.

A five-point Likert-type attitude scale was developed to measure the extent of agreement or disagreement with statements of marital and parental role attitudes. Eight categories were identified: basic decisions concerning marriage and parenthood, home responsibilities, parent-child relationships, social and religious relationships, financial income and management, personal characteristics, education, and decision-making. Six statements (two each for traditional, equalitarian, and experimental) were constructed for each of the categories, resulting in four 48-item personalized questionnaires (male expectations, male preference, female expectations, female

preferences). These items, judged by the researcher to reflect current attitudes, were submitted to a jury of four experts who rated the items according to which of the eight categories they belonged, which of the three attitude types they reflected, and the general quality of the item. A test-retest of the questionnaire yielded a Kuder-Richardson internal reliability coefficient of .67. Respondents to the final form of the instrument were 773 college freshmen. Each was asked to respond to either the expectations or preferences questionnaire; 374 students (160 men; 210 women) responded to the expectations questionnaire and 399 (162 men; 236 women) to the preferences questionnaire. Correlational comparisons showed results of the two forms of the test (expectations or preferences) to be significantly different; hence, data from the two questionnaires were analyzed separately. Differences in sex were tested by *t* tests while one-way ANOVA was used to examine differences in the other variables; differences were considered significant at the .05 level of probability.

Results indicated that the expectations and preferences of marital and parental roles by this population are not the same. Students appeared to feel constrained by society but expressed the desire to make changes if given the opportunity. There was a clear three-way split among the traditional, equalitarian, and experimental roles. Freshmen seemed to prefer and expect equalitarian role relationships first, then experimental and, lastly, traditional role relationships, although those with parental incomes under $10,000 appeared to be significantly more traditional in their preferences and expectations that those of higher income level. Other studies have documented the increasing standing of the equalitarian role. From the considerable differences in expectations and preferences between male and female freshmen, the researcher predicted considerable marital conflict. The independent variables of home background, parental occupation, and racial/ethnic background appeared to have little effect on the dependent variables of marital and parenting expectations and preferences. In the light of the discrepencies between men and women in their expectations and preferences toward parenting and marriage, the researcher recommended that a family life education course be required of all. Suggested concepts included basic techniques of interpersonal communication, exposure to marital and parenting roles different from those experienced in one's past, increasing

sensitivity to one's own attitudes and habits, and opportunities for men to interact with children.

Sex stereotyping was reflected in findings of Monts and Barkley (1978), in a study of essential life skills (ELS). They found that males noted more ELS for males than females in an employee role and more ELS for females than for males in the family role. Generally, females concurred with this point of view and noted more ELS for males than females in the individual role. This also was seen in the comparative assessment of secondary consumer and homemaking education programs in Illinois (Fults, 1972). Results of a chi-square analysis of differences between male and female respondents indicated that females learned little about fraud, while males reported learning a great deal. Females reported having learned how to shop; males did not.

DEVELOPMENTAL PROJECTS AND MATERIALS

Ford (1976) focused research study on middle and junior high school teachers regarding their needs for a sex-role, stereotype free home economics curriculum in preparation for teaching integrated classes. Emphasis was placed on the development of curricular materials, several of which could be covered in a six-to-twelve week session. At curriculum development meetings, the twenty-four teachers involved addressed such questions as: What changes in students were expected to result? What knowledge and skills must be developed for the objectives to be accomplished? What approaches will assist the students most in accomplishing these objectives? How can it be determined whether objectives have been reached? In field trials, 205 mini-units were distributed among teachers expressing an interest in pretesting them. Of these, ninety-five were returned with complete data. The purpose of these units was to provide equal educational opportunities in home economics to male and female middle school/junior high students. The resulting units appear to be free of any sex-role stereotyping. Smith (1977) described a statewide program to eliminate sex bias in occupational education in North Carolina. The researchers recommended that the following practices be adapted by other programs addressing this problem: (1) that state and local leaders develop the concept that it is sex bias, an unconscious complex of attitudes and behaviors, which says that men and women are basically different; (2) that the unconscious, unintentional aspects of sex bias be stressed in conjunction with an understanding of how bias can affect students and teachers alike; (3) that biases toward men as well as toward women be presented; and (4) that a discussion of the

potential personal effects of sex bias preceed any discussion of action to eliminate sex bias. The researchers stressed that state program plans be tailored to the needs of each area. Concepts which should be included in any plan to eliminate sex bias in traditionally "female" programs are ample time to discuss boys' feelings about doing what was previously considered girls' work and the girls' feelings about having the boys included. Educational materials currently in use should be examined for sex bias. Since it is unlikely that all materials can be replaced, methods of teaching should be planned with special care. Examples of individuals who have successfully entered careers traditionally held by the opposite sex should be provided as role models for the students.

The National Center for Research in Vocational Education in its Dissemination and Utilization Program, provides a periodically updated annotated list of tested resources related to sex equity in vocational education. Items are selected for their usefulness to educators, counselors, administrators, and parents in program planning, preservice and inservice teacher education, classroom use, and program monitoring. ("See Resource Update: 1979.")

SUMMARY

In summary, it is not surprising to note that a six-hour workshop failed to result in changes in attitudes about sex role equality and that the males in the workshops held the more traditional views of women's roles. Sex role equality attitudes studied with large samples of college student females were found to be far more nontraditional than traditional. However, career expectations and expectations for marital and parental roles were not in harmony with expressed nontraditional views of sex role equality. Textbook and other teaching materials were found to be sex-role stereotyped. Teachers of middle school children expressed their desire for curricula for use in integrated classes that would be free of stereotypes. In at least one state, vocationaleducators had not been informed about Title IX and very few had been involved in developing compliance statements. Most believed the legislated outcomes would be desirable, but few expected to see them in the near future.

OCCUPATIONS IN HOME ECONOMICS FIELDS

Among the studies selected for review, one provided information about the influences on enrollment in occupational home economics' courses. Information on New York State high school graduates related to their success in job placement is reported in a follow-up study of those prepared to take jobs in child care; another follow-up study queried graduates of occupational courses in Kentucky and Virginia. Methods of teaching were explored in two studies. Four reports dealt with curriculum developed for occupational programs. One examined perceptions of home economics related to day-care services.

ENROLLMENT IN OCCUPATIONAL HOME ECONOMICS COURSES

Determination of the extent to which enrollment and non-enrollment in a secondary school occupational home economics course was related to self-concept and career maturity of twelfth grade students was the focus of a study by New (1974). The sample comprised 303 twelfth grade students randomly drawn from eight high schools. It included three groups: students enrolled in occupational home economics courses, students enrolled in consumer and homemaking courses, and students not enrolled in home economics courses. Variables of ability, socioeconomic status, work experience, and previous enrollment in home economics courses were investigated. The students were found to be similar on socioeconomic status, full-time work experience, number of months spent on all work experiences, and hours per week spent on current jobs. They were significantly different on ability, previous enrollment in home economics courses, and first and second parttime work experiences. The Crites' Attitude Scale and Competence Test of the Career Maturity Inventory, the Waetjen Self-Concept as a Learner Scale, and a career development questionnaire were administered to participants at the end of the school year.

The following conclusions resulted from the analyses of variance used. When maturity of career choice attitude and career choice

competence was measured by scores obtained on the Crites' Career Maturity Inventory, students enrolled in occupational home economics courses evidenced levels of maturity similar to students enrolled in consumer and homemaking courses and those not enrolled home economics courses. When self-concept was measured by the Waetjen Self-Concept as a Learner Scale, students enrolled in occupational home economics courses evidenced similar positive self-concepts of task orientation and class membership; however, they evidenced significantly less positive self-concepts of motivation and problem solving than students enrolled in consumer and homemaking courses and those not enrolled in home economics courses. The ability of senior students was positively correlated with career maturity and self-concept. Higher achieving students tended to evidence more mature career choice attitudes and competencies and more positve self-concepts than lower achieving students.

METHODS OF TEACHING

Research has indicated that realistic goal setting behavior is correlated with past academic success. Harvey and Nelson (1972) examined the effect training home economics occupations students in goal setting behavior has on performance level. The subjects selected were seventy-four home economics occupation students enrolled in classes in the food or health services areas. The high and low ranking students were randomly distributed among four treatment conditions. Treatment Group I consisted of a realistic laboratory experience in which goal setting training was provided. Students were asked to respond to a questionnaire measuring willingness to enter competitive situations, and a real life experience with goal setting training was provided. Treatment Group II received the same treatment except that they received no goal setting training in either laboratory or real life experiences. Treatment Group III did not participate in the lab experience but were asked to respond to the questionnaire. After they participated in the real life experience with goal setting, the questionnaire was again administered. Treatment group IV was simply given the pre- and post-measure questionnaires.

The laboratory experience consisted of examining ten pictures depicting scenes from each of six occupations: short order cook, cook's helper, cafeteria counterperson, dietary aide, nurse's aide, and waitress. Each picture included at least twelve errors, e.g., inappropriate dress or action. Goal setting training consisted of allowing the student to set a goal for number of errors to be identified in the first picture.

In the real life experience, students were asked to rate their class work experiences on a job skill rating scale and a twenty-two category "Becoming Employable" scale. As in the laboratory experience, subjects were allowed to set their own goals and were given training in appropriate goal setting behaviors. The attitude questionnaire which measured willingness to enter competitive situations was a ten-item Likert-type scale.

Results on the laboratory training using a "least squares" solution for two way ANOVA indicated that subjects receiving the goal setting training performed significantly better (.005) than subjects who did not receive the training. Treatment differences in the real life experience were not significant. Both T1 and T3 subjects achieved 54 percent of the goals they had set; however, T1 subjects set approximately twice as many goals. The difference was attributed to the goal setting training. Differences between group T1 and T3 and group T2 and T4 were significant at $p<.10$. A more positive attitude change was noted for the former group. A significant ($p<.10$) interaction between achievement motivation and treatment effect was noted. T2 subjects who were highly achievement motivated evidenced the most positive attitude changes of all groups, whereas T2 subjects who were low in achievement motivation scored the most negative changes of all groups.

Three groups of school food service managers participated in a study by Acacio et al. (1972) designed to compare the relative merits and effectiveness of programmed instruction and group training. A group of twenty-one managers studied a self-instructional package administered as a home-study course; another group of twenty-one attended three short courses; and a control group of nineteen received no training. All of the participants were classified according to length of experience in food service and level of education. Pre- and post-tests were administered. The three groups were comparable in regard to pretraining job knowledge. For the self-instruction and short-course groups, there was a significant gain in job knowledge of nutrition, type-A lunch, menu making, and the three areas combined. The mean gain scores of the combined self-instruction and short-course groups were significantly higher than those of the control. Length of experience in food service made no difference in pre-training job knowledge or amount learned. Employees with grade 12 or more education had significantly more pretraining job knowledge of nutrition than those with less education. Regardless of level of education, employees who had programmed instruction learned as much as those in short courses for the three subject-matter areas common to both.

The participants in the self-instruction group had an overall favorable attitude toward the self-instructional package and toward programmed instruction as a method of training. They liked the self-instructional training program because it facilitated studying, was convenient to use, and provided additional or new information. Nevertheless, the participants disliked some aspects of the program, e.g., interruptions while studying at home, absence of an instructor, and having to learn how to study on their own.

A four-year research effort by Lowe et al. (1978) focused on the availability of curriculum materials in home economics occupations and the development of competency-based teaching modules in areas where high quality curriculum materials were not available. Modules in the series included: care and independent living services for aging; catering services; clothing alterations; consumer services; fabrics and textiles merchandising; fast food services; furnishings and housing maintenance services; housing management services; securing employment, and window treatment services. These modules are all based on the "lattice" concept -- enabling trainees to work in other jobs using comparable skills or to move vertically in the same job area by acquiring additional skills. Each of the modules includes pre- and post-assessment devices and a variety of teaching strategies. Each module considers the affective, cognitive, and psychomotor learning pertinent to performance of the various jobs covered. The modules are specifically designed for training and providing upward mobility opportunities for workers in the human service occupations. All ten modules developed were field tested with a sample of seventy-five sites and 1389 learners at the secondary, postsecondary, or adult levels in both school and non-school settings. The pre- and post-assessment instruments were submitted to juries and assessed for content and temporal reliability (85 percent agreement), objectively (100 percent agreement) and construct and content validity (50 percent agreement). Results indicated that a clear majority of the teachers found almost all items good to excellent. All of the curriculum modules were shown to be effective in increasing learner competencies identified within each module.

A national study was carried out by Beavers (1979) to validate program and performance standards for four postsecondary occupational areas: fashion merchandising, fashion design, apparel services, and window treatment services. The objectives were to identify common and unique competencies for the four areas, develop program

standards based on information from existing postsecondary programs, and validate program standards with a sample of educators and state educational supervisory personnel. Phase I included a survey of existing postsecondary programs. An initial questionnaire to identify program types was mailed to 271 institutions representing all fifty states. Information compiled from the initial questionnaire was used to develop program standards statements and provide direction in development of competency statements.

The program standards dealt with general program statements and with items related to specific occupational areas. Respondents were asked to respond on a 99-point scale with the degree of perceived importance of the standards. Thirteen educators and supervisory personnel pre-tested the questionnaire and made suggestions for revisions. Standards were divided to include a set for fashion merchandising and a set for the other three areas. Standard statement respondents were fifty educators in the fashion merchandising field and fifty-four educators in the other areas.

Competency statements were written based on the tasks performed in the four occupational areas. The statements were compiled into one instrument for each of the four areas. Separate questionnaires with the same competency statements were developed for business personnel and educators in each area; demographic data and other basic information varied. The fashion merchandising questionnaire included competencies needed for entry and mid-management levels.

Mean responses for program standards and competency statements were determined. Mean responses to the competency statements from educators and business personnel were plotted for each area, and a determination was made that no differences existed in the way the two groups were responding. Three scattergrams were prepared for the mean responses to the competency statements for fashion design and apparel services, fashion design and window treatment services, and window treatment and apparel services. Sixteen competencies were found to be common to all three areas, forty-three were common to apparel service and fashion design, twenty were common to fashion design and window treatment, and sixteen were common to window treatment and apparel services. Sixteen competencies were identified as important competencies for entry level fashion merchandising programs, and thirty-five additional competencies were identified as important for mid-management level positions.

White (1972) studied the potential of existing technical child development programs for incorporating a lattice-ladder concept of career mobility in order to suggest changes which would promote greater mobility among graduates of such programs. The population consisted of the 150 technical-level child development programs, certificate and associate, offered by the 131 technical institutes. Ninety-six institutions offering 107 programs responded to the request for their catalogs.

HEW guidelines for categorizing general, basic, and technical courses in technical education were employed in developing worksheets for tabulating curriculum offerings. To obtain more detailed information on the methods employed in training students to work with preschoolers, children, and youth, a questionnaire was developed with space provided for writing in methods not included in the checklist. Questionnaires were mailed to the ninety-six institutions; fifty-one institutions, offering sixty-four programs, responded.

In developing a model for assessing career mobility, two deans of technical colleges were asked for criteria which could be used in evaluating programs in terms of whether they permitted career movement into other areas at professional levels. Relating their responses to literature on the lattice-ladder concept, a model program was developed which would provide depth and breadth of knowledge, skill, and experience to help students develop versatility, and adaptability in related fields. The model was then used to evaluate the curricula offered by the programs for which data had been received.

There was considerable variation among programs in terms of courses required in the general, basic, and technical areas. The courses most commonly required for the associate degree are as follows: *general courses*: sociology, composition, general psychology and biology; *basic courses:* child development, child psychology, foods/nutrition, health education, and marriage; *technical courses:* practicum, preschool education, art, music, creative activities, science, preschool literature, organization of schools for young children, community services, infant nutrition, story-telling, dramatics, and first aid. Approximately 90 percent of the programs included laboratory experiences. Eighty-six percent offered supervised work experience.

Most of the associate degree programs (81 percent) offered opportunities for transfer to four-year institutions offering professional level programs. No provision for transfer credit was made in the certificate programs. Eighty-eight percent of the graduates were considered prepared for work as teachers aides in preschools. They were believed to be less prepared to work in elementary schools, children's hospitals, and homes for dependent children. White, in summary, designed a broader and more flexible curriculum guide offering more electives, a reduced number of required courses, and more technical courses as electives, believing that use of the lattice-ladder concept for curriculum development provides the foundation for flexibility on the job and adaptability needed to work in related areas.

Leonard et al. (1978) developed a comprehensive collection of performance objectives, performance guides, and criterion-referenced measures organized by the job structure of general house worker. The literature review and interviews indicated that the demand for household workers has exceeded the supply for some time for reasons related not only to low wages, the tedious nature of tasks, and the lack of advancement opportunities, but to the increasing numbers of women entering the labor force. Home economics teachers identified 437 persons employed as house workers by locating at least ten such persons in each parish throughout Louisiana, where the research was conducted. From a sample of 158, 134 responded to inventories designed to elicit information regarding time spent, duty and task descriptions, and equipment used. A highly qualified writing team of six members developed the performance objectives, criterion-referenced measures, and performance guides. Postsecondary, secondary, and vocational teachers; supervisors/administrators; curriculum specialists; employers; and incumbent house workers reviewed and evaluated each element for each task.

PERCEPTIONS ON DAY CARE SERVICES

Allen (1975) investigated the potential relationship of home economics to a changing need of families, namely, the need for day care services.

The urban population studied included selected groups of home economics educators, early childhood majors, home economics majors, parents of preschool children, and early childhood

educators. A questionnaire ascertained the perceptions of the subjects regarding generalizations on the home economics subject matter areas of family relations and child development, home management and family economics, foods and nutrition, and textiles and clothing. Responses were analyzed for frequency and significance at the .05 level, utilizing a chi square test.

Despite the fact the population groups reported that their exposure to home economics at the junior high school level was limited to the study of foods and nutrition and/or clothing and textiles, they reported a primary association and identification of the subject areas of home management and family economics with home economics. The area of foods and nutrition ranked second. Clothing and textiles ranked third. Home economics educators and students majoring in home economics reported a greater exposure to the breadth of home economics subject matter areas as a result of college courses. Dual purposes of home economics education were perceived. The professional component was identified as strengthening family life. The personal component was identified as helping individuals learn how to become better homemakers. The following generalizations were perceived by three-fourths of the respondents as being essential or important in the preschool classroom: our bodies must have nutrients; each individual is unique and no two families are exactly alike; and families and individuals have different values and ways of doing things. Of the sixteen generalizations studied, those most closely identified with home economics were related specifically to the study of foods and nutrition; the study of housing as it related to design, location, organization, household and household equipment; and the study of clothing (but not textiles). Respondents associated the generalization related to uniqueness of individuals primarily with psychology and those related to values primarily with sociology and secondarily with home economics. It was concluded that the strong identification and association of home economics with the subject matter areas of home management and family economics and foods and nutrition may provide a means of relating home economics to comprehensive day care programs.

FOLLOW-UP STUDIES

Butler (1971) in a five year study, focused on child care service programs in New York State -- on their success in preparing students for work in the community and on employer satisfaction

with their graduates. Training and guidance opportunities provided by these programs also were assessed. Questionnaires were sent to 494 former students, and their employers were contacted. Students provided information on their employment status subsequent to child care study and their perceptions of the value of the program. In addition, Butler devised an observation checklist through which schools offering study in child care services at the time of the research were evaluated. Content validity for the researcher-developed instruments was obtained by utilizing the training guide and research literature in designing questionnaires and follow-up studies. The opinions of six experts helped shape the final instrument. Reliability of the questionnaire was indicated by the consistent responses of students and the lack of misinterpretations. The employer satisfaction scale used had been validated in previous research.

Of the 378 former students who responded to the questionnaire, only 12 percent were employed in child care services; 38 percent were employed in other areas, and 50 percent were unemployed including 28 percent who had not yet completed school. Reasons most frequently given for not having obtained a job in child care services were not knowing where to look for jobs in the field and not being interested in employment at the time. Percentages of students feeling adequately prepared for work in child care ranged from 90 percent for graduates of one-year high school programs to 62 percent for graduates of two-year programs. The amount of time students actually spent working with children during their training correlated significantly with the type of employment obtained by graduates. Those who spent considerable amounts of time working with children most frequently obtained jobs in child care service. Only 27 percent of the respondents indicated that counselors had attempted to assist them in finding a job in child care service. The largest percentage of child care graduates worked in private homes as full-time sitters; only five graduates were employed as aides in group care situations. Most graduates found the training helpful in obtaining employment in child care. However, of the nine who obtained further training in child care after graduation, seven indicated that training was required by their employer, thus pointing to a need for a closer working affiliation between child care instructors and service providers.

Employer satisfaction with graduates was high. However, a major complaint was that many child care facilities were unaware of the availability of trained child care service workers. Employers

and graduates agreed that more experience in effective interaction with parents and staff in child care facilities would benefit graduates. Of the nineteen school programs observed, all incorporated eight of the twelve facility centers recommended by the Child Care Training Guide. Schools lacking facility centers planned to include them when relocated. Little or no follow-up or placement seemed to be done by the schools. Forty percent of the schools observed had no idea whether their graduates obtained jobs or invested in further education. Graduates listed family or friends as the most common sources of referral for employment.

Dennison (1978), viewing the job development and placement of program completers as important elements in an occupational program, identified variables affecting employment in occupations of completers of child care service programs. Subjects were all of the completers of secondary occupational child care programs in Virginia in 1975-76. Fifty-eight percent of the 193 who responded to the questionnaire were currently employed; of the 82 who were not, 65 percent were seeking employment. Only 28 percent of those employed were in training-related jobs. Three-fourths of the unemployed respondents had never been employed in the child care field; somewhat more than half of them indicating unavailability of jobs and continuing education as reasons for unemployment. There was a significant relationship between employment status and the variables of marital status (more of the employed were married); number of children (fewer of the employed had children); perceived job availability (fewer of the employed perceived few or no jobs as available); academic achievement (more of the employed reported higher grades); willingness to relocate to get a job in the child care field (fewer employed -- even though in an unrelated job -- would relocate). The researcher concluded that a low placement rate existed among completers of occupational child care programs and that completers had a negative perception of job availability. Respondents, by and large, did not feel that assistance from guidance counselors was adequate or that child care teachers helped them to find jobs. However, an equally high percentage of both employed and unemployed respondents rated the quality of their training as good or excellent.

Gasper (1977) provided data regarding the development and improvement of secondary school programs in occupational home economics. In this research study, questionnaires were sent to a random sample of 400 graduates of secondary school occupational home economics programs in child care, clothing, food, and home

and community services. A response of 194 (48.5 percent) was obtained on items relating to employment experience, job satisfaction, job adjustment, and evaluation of curriculum. The findings were descriptive and were reported as means, percentages, and frequency distributions.

More than half of the graduates (56 percent) were employed. However, only 18 percent held jobs in the area of their training. Eight percent were in related jobs, but 31 percent were in jobs not at all related to their training. More than half of the employed graduates of all four program areas were employed in food service. Many were not working in the area for which they received training because of the low pay in these jobs. Graduates of food service had a higher percentage of employment in the area of training or in related jobs compared to graduates of child care services. The unemployed graduates of child care services experienced greater difficulty in finding work (60 percent) and more job adjustment problems than those graduates in food service (34 percent). The graduates of food service felt greater satisfaction with their present employment (83 percent) compared to those in child care services (60 percent). Though the training in occupational home economics was seen to have contributed to the success of employees, it appeared to make a greater contribution to those in food service than to those in child care services.

Salaries and wages were congruent with expectations for entry-level employment, but job stability was not evident. A majority had been working in their present position less than a year. Many experienced job adjustment problems in handling new situations and developing work speed. The most frequent suggestions for changes in training programs were related to helping students find work, increasing the amount and scope of on-the-job experience, and providing help in human relationships.

SUMMARY

In summary, several researchers developed competency-based curriculum modules in home economics occupations and tested them for efficiency in secondary, postsecondary and adult education settings. Other researchers presented validated program performance objectives, performance standards, and criterion-referenced measure for several occupations. Postsecondary programs in child development were examined and changes recommended for increased

career mobility. State-wide follow-up studies of completers of secondary school child care services programs gave evidence that comparatively few were employed in the occupation for which they were trained. Respondents believed that their training had been good but generally felt that guidance counselors had not helped them in occupational choice and that neither child care services teachers nor other school personnel had helped them find jobs.

EVALUATION

Studies reviewed in this section include those detailing the development of instruments and reports of program evaluation.

INSTRUMENT DEVELOPMENT

Hughes and Fanslow (1975) considered evaluation a neglected area of competency-based education. They noted that teacher educators have said little about the quality of the devices used to assess competencies of students. They also insisted that before the performance of participants in a CBTE program can be assessed, two conditions must exist, namely, the devices should be sufficient to assure ample information for decisions and the measurement characteristics of those devices must be present at acceptable levels. Also taking note that there are few satisfactory instruments to measure the attainment of competencies described for CBTE programs, Whitaker (1976) undertook to develop diagnostic, formative, and summative criterion-referenced evaluation instruments to measure the competencies of the preprofessional student in two areas of home economics education, educational philosophy and professional role. Seven competencies were examined, namely, formulating a consistent professional system of beliefs based on philosophies of education and home economics; relating these beliefs to decision-making in educational settings; demonstrating ethical personal and professional behavior; evaluating social action which affects personal and family well-being; assuming responsibility for one's own continuous personal and professional growth; demonstrating a professional commitment to the field of home economics; and demonstrating the ability to fulfill all aspects of the role of the professional home economics educator.

The researcher identified specific behaviors for the competencies and tested a packet of eleven rating forms, two quizzes, and a final examination. A panel of judges (cooperating teachers, teacher educators, school administrators, and a school certification officer) validated criterion levels of the specific behaviors. Subjects were selected from seven universities. The findings

were basically conclusive. Analyses suggested that much work needs to be done on the evaluation of the competencies selected. Gilbert (1974) produced a rating scale to be used in the observation of student teachers in a competency-based program. At least 24 of the 50 items comprising the scale are considered productive. Interrater reliability coefficients of .87, .89, and .90 were shown over three tryouts. (The study is described in the section on competency-based teacher education.)

Caputo (1975) continued the series of studies initiated by Gilbert. Her purposes were to revise the student teacher evaluation (STE) based on Gilbert's recommendations, to identify items on the Revised STE (RSTE) which reliably assess and discriminate individual teacher classroom teaching performance, and to investigate the stability of individual teacher performance over classes. The revised instrument was divided into two parts. Part A, classroom performance, included 25 items, five of which were assessed in a pre-teaching observation conference (lesson plans, etc.). Part B, cumulative assessment over classes, included 22 items to be observed over several class periods. A 99-point scale was used in rating items. Raters were trained using videotapes of first year students. A second instrument, the assessment device for human relations skills (HRS) (Huyck, 1974), also was assessed for validity and reliability. This instrument is a 20-item scale assessing the three components of self, others, and the interaction between the two. Subjects were 40 first year teachers who had participated in Gilbert's initial study. An analysis of variance was computed for Part A and Part B of the RSTE. From these analyses, intra-class correlations were completed on each item. The intra-class correlations also were used to assess intra-judge reliability on discriminating items. Statistical analysis revealed that the judges were aware of (and rated accordingly) differences among teachers on 17 of the 25 items of Part A. It was found that ratings of individual teacher performance over the three class periods varied considerably, thereby indicating that in the future, assessments of individual teacher performance should cover more than one classroom situation. A similar analysis on Part B indicated that 18 of the 22 items were discriminating among teachers. When all items for section A and B were intercorrelated and examined for correlations and item content, three major clusters of items emerged: instructional modes, learning environment, and evaluation methods. Instructional modes and learning environment appeared to be dependent upon one another (72 percent common variance), while evaluation appears to be relatively independent, thereby suggesting that assessment of

evaluation techniques need not occur at the same time the performance observations take place.

The findings indicated that revision of RSTE had been worthwhile, that six of the items were easily observable in a short observation period and could be incorporated in an instrument designed for observation of a single class period. Eight were judged to be observable 75 percent of the time, and three 25 percent of the time. Only three of the 20 items received non-significant chi squares, indicating that judges were unable to reach agreement on rating the skill.

Fanslow et al. (1979) explored procedures for calculating reliability coefficients ratings of both global and specific teaching behaviors, including assessments of judges' agreements and examination of the effects of between and within teacher variance on reliability coefficients. A two part observation device, the teaching-learning process evaluation (TLPE), was developed to assess classroom performance observable in a single class period (Part A) and that observable over several class periods (Part B). This is a slightly revised form of Gilbert's TLPE using a 99-point scale in rating teacher behaviors. The sample was 40 first year teachers, graduates of two universities in home economics teacher education. Two trained judges completed copies of Part A for their classes and all of Part B for each teacher.

Three factor analysis of variance was used to examine the sources of variance for Part A (the teachers, the judges, teachers and judges, and classes within teachers). Two factor analysis of variance was used to examine sources of variance in Part B (teachers and judges). Results indicated the need to examine both judge and teacher-judge effects when assessing the reliability of teacher ratings. Furthermore, for obtaining reliable ratings of teacher behavior, it was found to be essential that the behaviors selected for rating be those on which teachers differ. Individual teacher behavior was seen to fluctuate as much from class to class as did the behavior of different teachers. In assessing teacher behavior from a single judgment (Part B), factors essential for obtaining reliable judgments of teacher behavior were perceived as selecting behaviors on which there is variability between teachers, and while it is not necessary for all judges to rate all teachers -- making sure of sufficient overlap to determine sameness or lack of sameness in judges' use of the rating scale.

McCall (1973) constructed two 100-item tests in a true/false format from a pool of 782 items based on the suggested guidelines for consumer education developed by the staff of the President's 1970 Committee on Consumer Interest. The items were judged by two panels of experts and pilot tested on 62 students enrolled in a family finance management course at The Pennsylvania State University. The Pearson product moment correlation was used to compute correlations between each item in the subgroup, with the subgroup total, plus total test scores. Reliabilities for each test were computed (using the Rabinowitz ANOVA technique) as .703 for Form I and .804 for Form II. The 84 items with the highest correlation coefficients were identified for use in the final instrument. The subjects for the final study were 1,256 students in a rural, suburban, and urban school district. Both males and females from grades 6,9, and 12 were included. An additional group of students who had graduated three years previously were examined separately. Total test reliability was .83. Duncan's Multiple Range Test and multiple classification ANOVA were used in data analysis between school districts on both the subscores and the total scores. The total test differentiated significantly among school districts and by grade levels. Although there were no significant differences in scores of boys and girls for the rural district, there were some significant differences (mostly in favor of girls) in the suburban and urban districts. Although some difficulties with the test at the sixth grade were indicated, the instrument appears to be useful in measuring knowledge of consumer concepts.

In addition to the instruments devised and developed by Gilbert, Caputo, Fanslow and McCall, some from other studies appear to have a possible broader use than in the research situation for which they were designed. For example, Brun (1970) developed and tested a system featuring a structured tally sheet for observing, recording, and analyzing teaching behaviors occurring in a classroom setting which stimulated student cognitive responses. The instrument performed reliably across observers and across the same session (video-taped) by a single observer in repeated viewings. It did not clearly discriminate among classes. However, the approach seemed to be a promising instrument for further development. Morgan (1973) also developed a scale to rate video-taped teaching performances with interrater reliabilities of .94 - .98. (This is described in the section on the professional education of teachers.) In addition, Murphy's spiral curriculum for consumer Education (1974) included criterion referenced assessment devices for each of its four modules. Reliability coefficients in trial tests ranged from .72 to .96.

Two studies which focused on the development of evaluation instruments were reviewed under competency-based teacher education. One by Leonard and Stewart (1979) determined the reliability of a rating scale to measure competency levels of graduating home economics educators. The one by Daniel (1976) measured affective competencies of vocational teachers.

PROGRAM EVALUATION

A major problem with many experimental designs used in evaluating adult educational programs is that they do not allow for the flexibility necessary to examine an open, adapting social organism. General systems theory principles allow for flexibility and serve to increase understanding of complex organizations.

In an innovative attempt to use the theory for Evaluation of Community Adult Education Program Model (EVACAEP), Kenworthy (1976) drew on components of general systems theory. The concrete, conceptual, and abstract types of system were incorporated in the model. Validity was assessed through a search of the literature and through comparison with an existing, exemplary community adult education (CAE) program. A flow chart was drawn up to serve as a guide for analysis, the informational networks were identified and verified as were organizational structure and effectiveness. These were reduced to an abstract system and then compared with the new model. Discrepancies were noted and recommendations for adjustment made. The model was subjected to a feasibility test in which 16 CAE practitioners filled out the questionnaire developed for EVACAEP (a matrix in which the various components and dimensions were outlined). They were asked to make value judgments at each cell of the matrix, using the report resulting from inquiry made in the above mentioned reality test.

It was found that CAE practitioners who were not recently affiliated with a university were somewhat cynical about the model and uncomfortable with its "jargon". Nevertheless, 22 of the 28 cells were found to be understandable and discriminating. The next logical step in the development and improvement of the model would be to give it to CAE program directors to see how it would be used in evaluating their own programs. Despite the fact that all but two CAE program practitioners found the evaluation difficult, many claimed that they learned a great deal about whether or not their activities were conducive to individual growth and development and to community betterment. The author concluded that with some

clarification of terms and minor adaptions to conform more closely to reality, the model is feasible for use in evaluating adult education programs. An interesting finding using the EVACAEP frame of reference was that many adults were not truly ready to direct their own learning. They needed assistance in gaining this skill.

Fults (1972) evaluated the 147 consumer-homemaking education programs in Illinois secondary schools in order to determine identifiable improvements in disadvantaged students' consumer and homemaker skills, the specific program components which led to these improvements, program components which failed to effect learning and the needs of teachers for professional education programs or additional skills in implementing or improving consumer-homemaking programs. A questionnaire was developed for each of the following groups: program administrators, teachers of consumer-homemaking programs, students enrolled in such programs, students who previously had been enrolled, and parents of students. For the programs contacted, replies were received from 106 administrators, 136 teachers, 1328 male and 2933 female students. Fourteen schools were selected for site evaluations and four schools for an in-depth evaluation. In on-site evaluation, 284 former students were surveyed. From these 14 schools, 250 parents were selected at random for personal interviews. Data were analyzed for differences between male and female student respondents using the Chi-square test. Results indicated that males and females learned selectively. For example, females learned little about fraud, while males repeatedly learned a great deal. On the other hand, females reported having learned how to shop while males had not.

Percentages of the total group responding were used to examine between and within group differences. Despite the fact that administrators reported a representative proportion of disadvantaged students attending consumer homemaking classes, student reports indicated that the majority of students in the course were not disadvantaged. (An objective definition of "disadvantaged" appeared to have been lacking.) All five groups agreed that the major objectives of the consumer-homemaking programs were being met. Teachers, students, and administrators agreed that the program should be expanded. Teacher needs included help with developing curriculum, evaluating, working with disadvantaged pupils, and teaching techniques. The researcher recommended statewide workshops addressing these problems.

A study commissioned by the Illinois State Office of Education (1975) to examine the effectiveness of the consumer education component of the Consumer Homemaking Program was conducted by IBEX, a consulting firm in North Carolina. (See "Comparative Assessment...", 1975.) Funded programs in 128 schools identified as serving disadvantaged populations were studied by means of the Information Based Model (IBE), a flexible evaluation system which allows for variation in program objectives. The evaluation focused on two major issues: whether the programs were effective in enchancing consumer knowledge, and if so, whether the gains could be attributed to specific aspects of the program.

To test the level of consumer knowledge, scores of the program participants on the Illinois Test of Consumer Knowledge (ITOCK) were compared with the scores of non-program participants. ITOCK consisted of 14 subtests in consumer and homemaking education including money management, insurance, food, housing, and taxes. Split half reliability, using the Spearman Brown Formula for forms A & B of ITOCK were .92 and .98 respectively. Program Structure Analysis (PSA) was used to identify differing program characteristics. PSA is a multi-analytic tool used in this case to link differences in program strategy with differences in program outcome. Two general program areas were studied by PSA: the general program characteristics, such as length of course and number of units implemented and the instructional approaches employed in teaching the course, such as multi-media presentations and resource persons. In using PSA, the consumer homemaking classrooms were dichotomized: those who scored high as a group on the ITOCK and those who scored lower. Results indicated that students enrolled in consumer and homemaking education courses scored significantly higher ($T=7.4$, $p.<001$) than the control group on ITOCK form A. Although statistically significant differences were obtained on four of the subtests, the differences were not as dramatic. The researchers noted that for subtests in topic areas, the teachers emphasized in class showed the most significant differnces. This sensitivity indicated that the test might be useful for classroom level evaluations.

PSA revealed three program characteristics which were significantly related to classroom performance on ITOCK: average length of course (in days) which was positively related; the number of units developed; and the number of units implemented. The high achieving group had an average 30 percent more instructional time than the low-achieving group. The researchers suggested that this may indicate that the quality of units used and amount of time spent instructing

are the major determinants of learning. Based on these results the researchers recommended that the average length of consumer and homemaking courses be increased and that a few well thought-out units be implemented as opposed to a shotgun approach. Six instructional approaches were found to account for 20 percent of the achievement variance on the ITOCK: debates, resource persons, use of multi-media, team teaching, field trips, and student demonstrations. Teacher rankings of use of various instructional approaches indicated that four of these six approaches were among the lowest 50 percent in terms of use. All six approaches involved student action and movement, an instructional component the researchers suggested has implications for instruction.

A third instrument, the 90-item Self Observation Scales (SOS), was used to measure how students perceive themselves in relation to their families, peers, teachers, and school. An extensive validation study utilizing data on a sample of 5,400 students based on ethnic and socio-economic characteristics of school children obtained from the Office of Civil Rights was used in the development of the instrument. Split half reliabilities obtained for the scale were calculated using the Spearman-Brown prophecy formula. With the exception of social maturity which showed a reliability of .57, the other eight subscales showed acceptable reliabilities around .80. Multiple correlations between student achievement (as measured by student GPA) and SOS scale ratings were significant ($r=.46$, $p<.001$). Students achieving at the top level were considerably higher in self-acceptance, school affiliation, social confidence and self-assertion than lower scoring students. The researchers stressed the implications of this correlation of academic success with self-concept for teaching in general. An additional correlation between SOS score and student plans after high school graduation was found. Students scoring high on SOS, particularly on measures of self-assertion, school affiliation, family affiliation and teacher affiliation, were those planning to attend college; those planning to go to work scored low. Consumer and homemaking teachers' ratings of student popularity and SOS scores correlated highly ($r= .36$, $p<.001$), indicating these teachers were capable of identifying students with low SOS and for whom positive learning experiences are of special value.

Nelson et al. (1978) conducted a formative evaluation of ten programs (nine urban, one rural) of homemaking and consumer education for low-income adults and out-of-school youth. The teachers tailored their programs at each center to local needs.

A bank of objectives (33 general and 135 specific) was developed from which staff could select those most appropriate. Each program was staffed by one or more professional home economists and one or more indigenous paraprofessionals. Techniques developed which were used to gather evidence of participant progress toward program objectives and the impact on paraprofessionals included interviews, ratings, recordings of critical incidents, systematic observations, comprehensive records of attendance, and participant activities. Content validity was established through literature review and reference to program objectives. Reliability for the major instruments was .89 for the test of participants by interview, .91 for the participant rating scale, .89 for the job performance scale rating paraprofessionals. Analyses to determine effectiveness of the program used *t* test, signed rank, product moment correlations. An Index of Program Effectiveness was compiled from rankings of the ten individual programs on participants' rating scale gain scores, attendance gain, use of resources, teacher maximization of the teachable moment, quality of daily preparation, and critical incidents. More than 3,000 individuals were reached by the ten programs. There was attrition of nearly half of the participants, but all programs showed marked gains in attendance over the previous year. Gain scores of high exposure participants on the knowledge and attitude interview/test were significantly higher than those of low-exposure participants only on the clothing and textile subscore. Significant gains on the rating scale of personal development were found for participants of eight of the ten centers. Program participants said they had learned in the subject areas of clothing and textiles, foods and nutrition, crafts, and management/consumer economics. Self-reported gains in understanding were found to be directly proportional to the number of hours participant activity records showed to have been spent on a subject area (except for the area of housing.) Teachers reported application of learning in all subject areas and increased use of community services.

Paraprofessionals achieved the same mean as the high-exposure participants on the interview/test. Subscores were similar, except that aides (both experienced and new aides of the comparison group) achieved higher scores on management and child development than did the high-exposure subjects. Aides perceived their most salient learnings to be in job skills. Comparison group aides were rated higher on job performance than experienced aides. This was due perhaps to the program looking more stable after its first two years and attracting more qualified aides. It may have been, too, that fewer new aides were hired on the basis of their political affiliations. Programs ranking high on the Index of Program

Effectiveness were characterized by the following aspects: city supervisor of home economics available to give top priority to development and supervision of adult centers; direct teaching by professional home economists; varied program offerings; close cooperation with other agencies; planned educational activities for children; at least rudimentary training program for para-professional staff; and continous recruitment of participants. Recommendations from this formative evaluation included the following: broadening program offerings; paying more attention to selecting qualified staff; intensifying recruitment efforts; emphasizing nutrition, child development and guidance, health, and housing.

The Mountain Plains regional residential career education project for families was designed to be a comprehensive family education program providing an integrated services approach to education in such human growth areas as consumer education, family budgeting, reinforcement of the family as the basic unit of success, child rearing techniques, health education, home skills, personal/interpersonal skills, as well as education for occupational development. Orrie (1973) gave an overview of the objectives of the program and of results up to that time.

The program was implemented with rural families (from Idaho, Montana, Nebraska, North Dakota, South Dakota, Wyoming) beset with such multiple problems as unemployment, low income, high degree of dependency on various state and federal assistance programs, deficiency in formal education, and general lack of social awareness. In addition to more formal aspects of the education program, counseling was available to all participants. One of the goals was to provide help in dealing with sex-role stereotyping, thought to be typical of disadvantaged families. Roles for husband and wife participants had been perceived as fairly clearly separated. Training included opportunities for the wife to learn new skills not associated with her role as homemaker. Emphasis was placed on sharing previously stereotyped roles. The focus was that of total family rehabilitation. A follow-up of early Mountain Plains program-completers was carried out. Among the encouraging findings were these: an average family increase in income from $364 per month to $486 per month; all families were living in rented or purchased modern homes or mobile homes; the children had all increased one grade in school and all ethnic children were able to communicate bilingually; more nutritious meals were being prepared and more attention paid to personal appearance and appearance of the home. Ninety-three percent of the adult graduates (12 families)

had been continuously employed in positions for which they were trained at the center.

Several studies that included evaluation of models, curriculum materials, or classroom instruction have been reported in other sections of this review. For example, Kasmur's (1977) examination of the relative effectiveness of three differing modes of instruction and the Cioch study (1974) of the impact of a mastery learning method are reported in the section on teaching methods and learning processes. Evaluations reviewed under inservice education include the studies by Farris (1978), who assessed the effect on home economics teachers of her model for inservice education and by Meszaros and Baird (1979), who provided evidence of effectiveness of inservice workshops through a comprehensive evaluation. Reported in the curriculum section is the three-state study by Nelson et al. (1975). They evaluated the effectiveness of a newly developed curriculum dealing with dual roles of homemaker and wage earner. An account of the evaluation of a self-instructional program for food services work (Acacio et al., 1972) is reported in the occupational home economics section. Farris' (1977) evaluation of an inservice program aimed at reducing sex-role stereotyping among vocational teachers is reported in the sex-stereotyping section. Anderson's (1975) study developed educational modules to teach four basic areas of evaluation. It also is reported with the studies of teaching methods and learning processes.

SUMMARY

In summary, instruments have been developed and tested rigorously by a number of researchers. Many instruments appear to be useful beyond the research settings for which they were designed. Researchers and program evaluators may find high quality, useable devices for measuring the effectiveness of teachers and attainment of consumer education concepts. Reports of only three large scale program evaluations were found. Each of the three evaluations recommended continuation of the program studied on the basis of evidence of progress toward program objectives. In each, however, further recommendations indicated that would improve the programs. Evaluations of smaller scope included a number of examinations of the relative effectiveness of different modes of instruction, tests of curriculum units, and studies of the efficiency of inservice programs.

RESPONSIVENESS TO NEEDS FOR INFORMATION

The National Institute of Education (1977), in its report to the United Congress on their plan for the study of vocational education, proposed to examine the extent to which home economics programs are responsive to the requirements and intent of federal legislation.

Through federal legislation, funds are provided for educational programs, at all educational levels for the occupation of homemaking. The intent of the law is clear. The content of programs should be shaped by current national and local economic, social, and cultural needs.

Many studies included in this review may have a contribution to make to the information needs of the Congress as it contemplates possible redirection and improvement of home economics programs. The NIE Report indicated that in spite of the familiar inadequacies and imperfections in existing data sources, there is reason to believe that they can be more effectively mined than they have been in the past in depicting the public vocational education enterprise in all its diversity.

Some of the researchers speak to that portion of the legislation that intended to encourage outreach programs in communities for youth and adults giving considerations to special needs populations, such as the aged, young children, single parents, the handicapped, and the like. For example, Ambrose (1977) tested the feasibility of using a non-graded competency-based module on securing employment with learners confined in correctional facilities. Miller (1978) studied consumer attitudes and behavior in an elderly population expected to know the least about consumer and homemaking functions.

Several of the researchers focused on the section of the legislation which indicated the necessity to give greater consideration to economic, social, and cultural conditions and needs. For example, Petrich et al. (1972) and Monts and Barkley (1978) conducted investigations to identify life skills perceived by young men and

women as essential. La Fortune (1978) provided information on perceived needs of junior and senior high school students and needs perceived by parents related to food and nutrition, human development, and family and resource management. Strinden (1975) examined differences in perceptions of low-income homemakers regarding relative importance of consumer activities.

The materials developed by Conway (1979) have provided help for preservice teachers who will have to cope with the serious reading problems of students in home economics classrooms. Waggoner (1973) produced curriculum materials with special emphasis on suitability to disadvantaged learners. Kohlman (1977) developed and tested classroom activity centers as a means of integrating handicapped students into regular home economics classrooms. Teachers in a workshop sponsored by the New Jersey State Department of Education (1976) developed a handbook to help teachers in working with mentally retarded students. Krieger (1978) developed a multi-media learning experience to help teachers respond to visually impaired students.

Several studies responded to that portion of the legislation which was aimed at eliminating sex-stereotyping in consumer and homemaking education. Farris (1977) devised, implemented, and evaluated an inservice workshop to reduce sex-role stereotyping in vocational education. An expanded project with supporting materials emerged with promise of fulfilling expectation. Krosky (1974) and Weis (1979) studied textbooks and other materials used in home economics classrooms to help teachers become more sensitive to sex-role stereotypes and sex bias and, thereby, choose instructional materials appropriately. Ford (1976) developed over 200 sex-role, stereotype-free mini-units for use in middle school classes.

Many researchers speak to those aspects of the legislation which called attention to the need to emphasize ancillary services, activities, and other means of assuring quality in all homemaking education programs. For example, Redich (1974) identified teacher competencies needed for working with the physically handicapped. A series of studies by Gilbert (1974), Caputo (1975), and Fanslow (1979) identified reliable indices in examining the effectiveness of preservice teachers. Farris (1978) developed and tested learning packages combining visual aids and reading materials to provide accessible inservice education to practicing professionals. Meszaros and Baird (1979) constructed and experimentally tested a model for inservice workshops, using a

competency-based approach. Home economics teacher educators from across the nation have met in a continuing series of workshops and seminars to identify the professional competencies essential for home economics teachers, to assemble instruments for assessing these competencies, to identify the competencies needed in the subject matter to be taught, and to establish criteria against which the competencies may be judged.

Major program evaluations were conducted in two states. Fults (1972) studied 147 consumer-homemaking education programs in Illinois and found agreement among administrators, teachers, and students that objectives of the programs were being met. A later study in Illinois (IBEX, 1975) examined the consumer education component of consumer-homemaking programs and indicated the programs were effective in enhancing consumer knowledge. Nelson et al. (1978) carried out a formative evaluation of a sample of ten New York State consumer-homemaking outreach programs for disadvantaged adults. Learners gained in those subjects in which they spent most time; there also were significant gains in personal development.

Large scale curriculum development projects were conducted by researchers funded at the state or federal level. Murphy (1974) developed and tested a four-module spiral curriculum guide for consumer education. A curriculum focusing on homemaker and wage-earner roles was constructed and tested in four states by Nelson et al. (1975).

Programs designed to prepare students for wage earning in home economics-related occupations also were represented in the research. Lowe and her co-workers (1978) determined the availability of curriculum materials and developed ten competency-based modules for areas in which high quality materials were not available. All were tested in field sites with nearly 1400 learners. Beavers (1979) validated program and performance standards for four postsecondary occupational areas. And, finally, White (1972) designed a flexible curriculum guide for postsecondary child development programs that incorporated a lattice-ladder concept of career mobility.

RECOMMENDATIONS FOR FUTURE RESEARCH

Several studies in this review were directed toward areas of needed research identified in one or more of the three previous reviews (Chadderdon and Fanslow, 1966; Nelson, 1970; Bailey, 1971). Such areas included teacher effectiveness, perceptions and affective behavior of individuals, professional commitment, effectiveness of instructional materials and methods, efficacy of curriculum modules, validation of instruments already developed, extensively based curriculum research, and consumer education. However, for other areas, little or no research was found for the current review. No research was located on the long-term influences of experimental work-study programs, follow-up of persons completing occupational training into the world of work, or on the creation of model programs of adult education. No reports were found on the long-term effects of curricula in homemaking and consumer education or on comparative studies of values, interests, or appreciations of youth of different ages. In addition, no research was located which dealt with the provision of vicarious methods of providing for preservice experiences with disadvantaged learners. Program evaluations were few in number, as were replications of previous studies.

It is more than likely that the projections of the previous reviews were overly ambitious. Looking at the last two reviews especially, it is evident that some of the recommendations for needed research could only have been carried out with negation of the researcher's creativity and individuality. Other studies could only be done with large commitments of time and effort as well as more adequate funding for these enterprises. Furthermore, recommendations for replications may fall on deaf ears no matter how useful they may be. Senior researchers sometimes perceive barriers to publication in professional journals for these types of studies; graduate students also often are not encouraged to conduct such studies as their thesis research.

Funds have not been available for large scale and longterm research. *The Plan for the Study of Vocational Education* (1977) presented to the Congress indicated that consumer and homemaking programs

appear to have been neglected in evaluation research on a national level and that systematic state level evaluations of the outcomes for learners are lacking. Therefore, much of the research of the past decade although of good quality and useful locally, has been largely fragmented and is not as comprehensive as is needed. It is difficult to set forth priorities for research, recognizing the many constraints noted above. Nevertheless, the needs continue to exist. Mandated evaluation and educational accountability strongly point to the necessity for more evaluative research. Also, we might turn a larger portion of our research efforts to the results of teaching, rather than concentrating on the process. With increasing emphasis on the effects of home economics curriculum and teaching in the lives of learners, we could address a number of significant problems. For example, some of these problems are: meeting the unique needs of teenage parents, managing the home in those hours left after the workday, managing single parent households, changing behaviors of individuals regarding food habits, and so on. A comprehensive follow-up of high school graduates with varying amounts of exposure to home economics would be illuminating.

We continue to need information about the teaching process, learning abilities, handicapping conditions, the disadvantaged and special needs. The Education for All Handicapped Children (P.L. 94-142) went into effect in 1977. With this law, public school teachers are faced with providing effective programs for handicapped students. They will need whole new sets of skills to meet the needs of these students. Personnel development for those involved with handicapped learners is an emerging priority. Estimates suggest that over two million regular educators require inservice training to implement the provisions of this law. Vocational teachers have been specifically noted in these estimates.

Home economics educators have a responsibility not only for the development of curricula, but also for assessing the effectiveness of the materials developed. Consumer-homemaking programs, using newly developed and pilot-tested curriculum materials, should be examined in multiple evaluations such as have been carried out for Head Start or the Expanded Food and Nutrition Education Program of the Department of Agriculture. These multiple evaluations would provide more credible conclusions about effectiveness. A series of summative evaluations might be possible, for example with programs using the spiral curriculum for consumer education.

A committee of home economics educators representing the American Vocational Association, American Home Economics Association, the Home Economics Education Association, and the USOE has been established to identify research needs of the profession. Research is needed in order to answer such questions as, "How many students are reached by consumer and homemaking programs?" and "What is taught in these programs?" Such information has not been available since Coon's national survey (1964). Some research along these lines *is* currently under way by home economics educators at Iowa State University. This national study should provide current information on such questions as those cited above. Other research studies now underway include examination of exemplary programs focusing on areas of need and on special populations.

Through this joint committee it might be possible to establish a more formalized network among institutions interested in home economics education research. The result might be enhanced communication and cooperation about research needs and priorities. Hence, it might be possible to join the separate resources in pursuing research with large national samples and longitudinal research which some problems require. It would be feasible with such a pooling of efforts to augment survey and experimental studies with research using the qualitative methodologies of participant observation, indepth interviewing, and field work.

With a larger vision, we should find it possible to address problems not only of interest and concern to individual researchers but, more significantly, those that are vital to practitioners and to the public interest.

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